#### 1/2682 FIGURE 1A

GCGGCCTCTTGTGTGAGGGCCTGTGGGATTCTCCGGATATCGCCGGAGTGTTTCCTTATCGAGGGCCGGGTAACC CGGTGCCTGGCCCTCTAGCCCCGCTACCGGACTACATGTCGGAGGAGAAGCTGCAGGAGAAAGCTCGAAAATGGC CAGAACATGTCAGGGAGATCATTCGAGACCATGGAGACATGACCAACAGGAAGTTCCGCCATGACAAAAGGGTTT ACTTGGGTGCCCTAAAGTACATGCCCCACGCAGTCCTCAAACTCCTGGAGAACATGCCTATGCCTTGGGAGCAGA TTCGGGATGTGCCCGTGCTGTACCACATCACTGGAGCCATTTCCTTCGTCAATGAGATTCCCTGGGTCATTGAAC CTGTCTACATCTCCCAGTGGGGGTCAATGTGGATTATGATGCGCCGAGAAAAAAGAGATAGGAGGCATTTCAAGA GAATGEGTTTTCCCCCTTTTGATGATGAGGAGCCGCCCTTGGACTATGCTGACAACATCCTAAATGTTGAGCCAC TGGAGGCCATTCAGCTAGAGCTGGACCCTGAGGAGGACGCCCCTGTGTTGGACTGGTTCTATGACCACCAGCCGT TGAGGGACAGCAGGAAGTATGTAAATGGCTCCACTTACCAGCGCTGGCAGTTCACACTACCTATGATGTCAACTC TCTACCGCCTGGCTAATCAGCTCCTGACAGACTTGGTGGATGACAACTACTTCTACCTGTTTGATTTGAAGGCCT TCTTTACGTCCAAGGCACTCAATATGGCCATTCCTGGAGGCCCCAAATTTGAACCTCTTGTTCGAGACATCAACC TACAGGATGAAGACTGGAATGAATTCAATGATATTAACAAGATTATCATCCGGCAGCCTATCCGGACTGAGTACA AGATTGCTTTCCTTACTTGTACAACAATCTTCCACACCATGTCCACCTCACCTGGTACCATACTCCCAATGTTG TATTCATCAAAACTGAAGATCCTGACTTGCCAGCTTTCTACTTTGACCCTTTGATCAACCCAATCTCCCATAGGC ACTCAGTCAAGAGCCAGGAACCATTGCCGGATGATGATGAGGAATTTGAGCTCCCGGAGTTTGTGGAGCCCTTCC TGAAGGACACCCCTCTATACAGACAATACAGCCAATGGCATTGCCCTGCTCTGGGCCCCGCGGCCCTTCAACC TACGCTCTGGTCGCACCCGTCGGGCCCTGGACATACCCCTTGTCAAGAACTGGTATCGGGAGCATTGTCCTGCCG GGCAGCCTGTGAAAGTGAGGGTCTCCTACCAGAAGCTGCTTAAGTACTATGTGCTGAATGCCCTGAAGCATCGGC CCCCTAAGGCTCAAAAGAAGAGGTATTTGTTCCGCTCCTTCAAAGCCACCAAATTCTTTCAGTCCACAAAGCTGG ACTGGGTGGAGGGTTGGCTCCAGGTTTGCCGCCAGGGCTACAACATGCTCAACCTTCTCATTCACCGCAAAAACC CTCGTTTTGGGAATGCTTTCCACCTGTGTCGGGAAGTTCTGCGTTTGACTAAGCTGGTGGTGGATAGTCACGTGC AGTATCGGCTGGGCAATGTGGATGCCTTCCAGCTGGCAGATGGATTGCAGTATATATTTGCCCATGTTGGGCAGT TGACGGGCATGTATCGATACAAATACAAGCTGATGCGACAGATTCGCGTGTGCAAGGACCTGAAGCATCTCATCT ATTATCGTTTCAACACAGGCCCTGTAGGGAAGGGTCCTGGCTGTGGCTTCTGGGCTGCCGGTTGGCGAGTCTGGC TCTTTTTCATGCGTGGCATTACCCCTTTATTAGAGCGATGGCTTGGCAACCTCCTGGCCCGGCAGTTTGAAGGTC GACACTCAAAGGGGGTGGCAAAGACAGTAACAAAGCAGCGAGTGGAGTCACATTTTGACCTTGAGCTGCGGGCAG CTGTGATGCATGATATTCTGGACATGATGCCTGAGGGGGATCAAGCAGAACAAGGCCCGGACAATCCTGCAGCACC TCAGTGAAGCCTGGCGCTGCTGGAAAGCCAACATTCCCTGGAAGGTCCCTGGGCTGCCGACGCCCATAGAGAATA TGATCCTTCGATACGTGAAGGCCAAGGCTGACTGGTGGACCAACACTGCCCACTACAACCGAGAACGGATCCGCC GAGGGGCCACTGTGGACAAGACTGTTTGTAAAAAGAATCTGGGCCGCCTCACCCGGCTCTATCTGAAGGCAGAAC AGGAGCGGCAGCAACTACCTGAAGGACGGGCCTTACATCACAGCGGAGGAAACAGTGGCAGTATATACCACCA CAGTGCATTGGTTGGAAAGCCGCAGGTTTTCACCCATCCCATTCCCCCACTCTCTATAAGCATGACACCAAGT AGCTAGGTCTGATCGAGCAGGCCTACGATAACCTCCACGAGGCGCTGTCCCGCATAAAGCGTCACCTCCTCACAC AGAGAGCCTTCAAAGAGGTGGGCATTGAGTTCATGGATCTGTATAGCCACCTCGTTCCAGTATATGATGTTGAGC CCCTGGAGAAGATAACTGATGCTTACCTGGACCAGTACCTGTGGTATGAAGCCGACAAGCGCCGCCTGTTCCCAC CCTGGATTAAGCCTGCAGACACAGAACCACCTCCACTGCTTGTTTACAAGTGGTGTCAAGGCATCAATAACCTGC AGGACGTGTGGGAGACGAGTGAAGGCGAGTGCAATGTCATGCTGGAATCCCGCTTTGAGAAGATGTATGAGAAGA TCGACTTGACTCTGCTCAACAGGCTCGTGCGCCTCATCGTGGACCACAACATAGCCGACTACATGACAGCCAAGA ACAACGTCGTCATCAACTATAAGGACATGAACCATACGAATTCATATGGGATCATCAGAGGCCTGCAGTTTGCCT CATTCATAGTGCAGTATTATGGCCTGGTGATGGATTTGCTTGTATTGGGATTGCACCGGGCCAGTGAGATGGCTG GGCCCCCTCAGATGCCAAATGACTTTCTCAGTTTCCAGGACATAGCCACTGAGGCTGCCCACCCCATCCGTCTCT TCTGCAGATACATTGATCGCATCCATATTTTTTTCAGGTTCACAGCAGATGAGGCTCGGGACCTGATTCAACGTT ACCTGACAGAGCACCCTGACCCCAATAATGAAAACATCGTTGGCTATAATAACAAGAAGTGCTGGCCCCGAGATG CCCGCATGCGCCTCATGAAACATGATGTTAACTTAGGCCGGGCGGTATTCTGGGACATCAAGAACCGCTTGCCAC GGTCAGTGACTACAGTTCAGTGGGAGAACAGCTTCGTGTCTGTGTACAGTAAGGACAACCCCAACCTGCTGTTCA

#### 2/2682 FIGURE 1B

ACATGTGTGGCTTCGAGTGCCGCATCCTGCCTAAGTGCCGCACCAGCTATGAGGAGTTCACCCACAAGGACGGGG TCTGGAACCTGCAGAATGAGGTTACTAAGGAGCGCACAGCTCAGTGTTTCCTGCGTGTGGACGATGAGTCAATGC AGCGCTTCCACAACCGCGTGCGTCAGATTCTCATGGCCTCTGGGTCCACCACCTTCACCAAGATTGTGAATAAGT GGAATACAGCTCTCATTGGCCTTATGACATACTTTCGGGAGGCTGTGGTGAACACCCCAAGAGCTCTTGGACTTAC TGGTGAAGTGTGAGAACAAAATCCAGACACGTATCAAGATTGGACTCAACTCCAAGATGCCAAGTCGGTTCCCCC CGGTTGTGTTCTACACCCCTAAGGAGTTGGGTGGACTCGGCATGCTCTCAATGGGCCATGTGCTCATCCCCCAAT CCGACCTCAGGTGGTCCAAACAGACAGATGTAGGTATCACACACTTTCGTTCAGGAATGAGCCATGAAGAAGACC AGCTCATTCCCAACTTGTACCGCTACATACAGCCATGGGAGAGCGAGTTCATTGATTCTCAGCGGGTCTGGGCTG AGTACGCACTCAAGAGGCCAAGAGGCCATTGCTCAGAACAGACGCCTGACTTTAGAAGACCTAGAAGATTCATGGG ATCGTGGCATTCCTCGAATCAATACCCTCTTCCAGAAGGACCGGCACACACTGGCTTATGATAAGGGCTGGCGTG TCAGAACTGACTTTAAGCAGTATCAGGTTTTGAAGCAGAATCCGTTCTGGTGGACACCAGCGGCATGATGGGA AGCTCTGGAACCTGAACAACTACCGTACAGACATGATCCAGGCCCTGGGCGGTGTGGAAGGCATTCTGGAACACA CACTCTTTAAGGGCACTTACTTCCCTACCTGGGAGGGGGCTTTTCTGGGAGAAGGCCAGTGGCTTTGAGGAATCTA TGAAGTGGAAGAAGCTAACTAATGCTCAGCGATCAGGACTGAACCAGATTCCCAATCGTAGATTCACCCTCTGGT GGTCCCCGACCATTAATCGAGCCAATGTATATGTAGGCTTTCAGGTGCAGCTAGACCTGACGGGTATCTTCATGC ACGGCAAGATCCCCACGCTGAAGATCTCTCTCATCCAGATCTTCCGAGCTCACTTGTGGCAGAAGATCCATGAGA GCATTGTTATGGACTTATGTCAGGTGTTTGACCAGGAACTTGATGCACTGGAAATTGAGACAGTACAAAAGGAGA CAATCCATCCCCGAAAGTCATATAAGATGAACTCTTCCTGTGCAGATATCCTGCTCTTTGCCTCCTATAAGTGGA ATGTCTCCCGGCCCTCATTGCTGGCTGACTCCAAGGATGTGATGGACAGCACCACCCAGAAATACTGGATTG ACATCCAGTTGCGCTGGGGGGACTATGATTCCCACGACATTGAGCGCTACGCCCGGGCCAAGTTCCTGGACTACA CCACCGACAACATGAGTATCTACCCTTCGCCCACAGGTGTACTCATCGCCCATTGACCTGGCCTATAACTTGCACA GTGCCTATGGAAACTGGTTCCCAGGCAGCAAGCCTCTCATACAACAGGCCATGGCCAAGATCATGAAGGCAAACC CTGCCCTGTATGTGTTACGTGAACGGATCCGCAAGGGGCTACAGCTCTATTCATCTGAACCCACTGAGCCTTATT TGTCTTCTCAGAACTATGGTGAGCTCTTCTCCAACCAGATTATCTGGTTTGTGGATGACACCAACGTCTACAGAG TGACTATTCACAAGACCTTTGAAGGGAACTTGACAACCAAGCCCATCAACGGAGCCATCTTCATCTTCAACCCAC GCACAGGGCAGCTGTTCCTCAAGATAATCCACACGTCCGTGTGGGCGGGACAGAAGCGTTTGGGGCAGTTGGCTA AGTGGAAGACAGCTGAGGAGGTGGCCGCCCTGATCCGATCTCTGCCTGTGGAGGAGCAGCCCAAGCAGATCATTG TCACCAGGAAGGGCATGCTGGACCCACTGGAGGTGCACTTACTGGACTTCCCCAATATTGTCATCAAAGGATCGG AGCTCCAACTCCCTTTCCAGGCGTGTCTCAAGGTGGAAAAATTCGGGGATCTCATCCTTAAAGCCACTGAGCCCC AGATGGTTCTCTTCAACCTCTATGACGACTGGCTCAAGACTATTTCATCTTACACGGCCTTCTCCCGTCTCATCC TGATTCTGCGTGCCCTACATGTGAACAACGATCGGGCAAAAGTGATCCTGAAGCCAGACAAGACTACTATTACAG AACCACACCACATCTGGCCCACTCTGACTGACGAAGAATGGATCAAGGTCGAGGTGCAGCTCAAGGATCTGATCT TGGCTGACTACGGCAAGAAAAACAATGTGAACGTGGCATCACTGACACAATCAGAAATTCGAGACATCATCCTGG GTATGGAGATCTCGGCACCGTCACAGCAGCGGCAGCAGATCGCTGAGATCGAGAAGCAGACCAAGGAACAATCGC AGCTGACGGCAACACAGACTCGCACTGTCAACAAGCATGGCGATGAGATCATCACCTCCACCACCAGCAACTATG AGACCCAGACTTTCTCATCCAAGACTGAGTGGAGGGTCAGGGCCATCTCTGCTGCCAACCTGCACCTAAGGACCA ATCACATCTATGTTTCATCTGACGACATCAAGGAGACTGGCTACACCTACATCCTTCCCAAGAATGTGCTTAAGA AGTTCATCTGCATATCTGACCTTCGGGCCCAAATTGCAGGATACCTATATGGGGTGAGCCCACCAGATAACCCCC TGCCCCAGCATGAGTACCTCAAGGAGATGGAACCCTTAGGTTGGATCCACACTCAGCCCAATGAGTCCCCGCAGT TATCACCCCAGGATGTCACCACCCATGCCAAGATCATGGCTGACAACCCATCTTGGGATGGCGAGAAGACCATTA TCATCACATGCAGCTTCACGCCAGGCTCCTGTACACTGACGGCCTACAAGCTGACCCCCAGTGGCTACGAATGGG GCCGCCAGAACACAGACAAGGGCAACAACCCCAAGGGCTACCTGCCTTCACACTATGAGAGGGTGCAGATGCTGC TGTCGGACCGTTTCCTTGGCTTCTTCATGGTCCCTGCCCAGTCCTCGTGGAACTACAACTTCATGGGTGTTCGGC ATGACCCCAACATGAAATATGAGCTACAGCTGGCGAACCCCAAAGAGTTCTACCACGAGGTGCACAGGCCCTCTC ACTTCCTCAACTTTGCTCTCCTGCAGGAGGGGGGGGGGTTTACTCTGCGGATCGGGAGGACCTGTATGCCTGACCGT TTCCCTGCCTCCTGCTTCAGCCTCCCGAGGCCGAAGCCTCAGCCCCTCCAGACAGGCCGCTGACATTCAGCAGTT TGGCCTCTTTCCCTCTGTCTGTGCTTGTTGTTGACCTCCTGATGGCTTGTCATCCTGAATAAAATATAATAAT

# 3/2682 FIGURE 1C

AAATTTTGTATAAATAGG

MAGVFPYRGPGNPVPGPLAPLPDYMSEEKLQEKARKWQQLQAKRYAEKRKFGFVDAQKEDMPPEHVREIIRDHGD MTNRKFRHDKRVYLGALKYMPHAVLKLLENMPMPWEQIRDVPVLYHITGAISFVNEIPWVIEPVYISOWGSMWIM MRREKRDRRHFKRMRFPPFDDEEPPLDYADNILNVEPLEAIQLELDPEEDAPVLDWFYDHQPLRDSRKYVNGSTY QRWQFTLPMMSTLYRLANQLLTDLVDDNYFYLFDLKAFFTSKALNMAIPGGPKFEPLVRDINLQDEDWNEFNDIN KIIIRQPIRTEYKIAFPYLYNNLPHHVHLTWYHTPNVVFIKTEDPDLPAFYFDPLINPISHRHSVKSQEPLPDDD EEFELPEFVEPFLKDTPLYTDNTANGIALLWAPRPFNLRSGRTRRALDIPLVKNWYREHCPAGQPVKVRVSYQKL LKYYVLNALKHRPPKAQKKRYLFRSFKATKFFQSTKLDWVEGWLQVCRQGYNMLNLLIHRKNLNYLHLDYNFNLK PVKTLTTKERKKSRFGNAFHLCREVLRLTKLVVDSHVQYRLGNVDAFQLADGLQYIFAHVGQLTGMYRYKYKLMR QIRVCKDLKHLIYYRFNTGPVGKGPGCGFWAAGWRVWLFFMRGITPLLERWLGNLLARQFEGRHSKGVAKTVTKQ RVESHFDLELRAAVMHDILDMMPEGIKQNKARTILQHLSEAWRCWKANIPWKVPGLPTPIENMILRYVKAKADWW TNTAHYNRERIRRGATVDKTVCKKNLGRLTRLYLKAEQERQHNYLKDGPYITAEETVAVYTTTVHWLESRRFSPI PFPPLSYKHDTKLLILALERLKEAYSVKSRLNQSQREELGLIEQAYDNLHEALSRIKRHLLTQRAFKEVGIEFMD LYSHLVPVYDVEPLEKITDAYLDQYLWYEADKRRLFPPWIKPADTEPPPLLVYKWCQGINNLQDVWETSEGECNV MLESRFEKMYEKIDLTLLNRLVRLIVDHNIADYMTAKNNVVINYKDMNHTNSYGIIRGLQFASFIVQYYGLVMDL LVLGLHRASEMAGPPQMPNDFLSFQDIATEAAHPIRLFCRYIDRIHIFFRFTADEARDLIQRYLTEHPDPNNENI VGYNNKKCWPRDARMRLMKHDVNLGRAVFWDIKNRLPRSVTTVQWENSFVSVYSKDNPNLLFNMCGFECRILPKC RTSYEEFTHKDGVWNLQNEVTKERTAQCFLRVDDESMQRFHNRVRQILMASGSTTFTKIVNKWNTALIGLMTYFR EAVVNTQELLDLLVKCENKIQTRIKIGLNSKMPSRFPPVVFYTPKELGGLGMLSMGHVLIPQSDLRWSKQTDVGI THFRSGMSHEEDQLIPNLYRYIQPWESEFIDSQRVWAEYALKRQEAIAQNRRLTLEDLEDSWDRGIPRINTLFQK DRHTLAYDKGWRVRTDFKQYQVLKQNPFWWTHQRHDGKLWNLNNYRTDMIQALGGVEGILEHTLFKGTYFPTWEG LFWEKASGFEESMKWKKLTNAQRSGLNQIPNRRFTLWWSPTINRANVYVGFQVQLDLTGIFMHGKIPTLKISLIQ IFRAHLWQKIHESIVMDLCQVFDQELDALEIETVQKETIHPRKSYKMNSSCADILLFASYKWNVSRPSLLADSKD VMDSTTTQKYWIDIQLRWGDYDSHDIERYARAKFLDYTTDNMSIYPSPTGVLIAIDLAYNLHSAYGNWFPGSKPL IQQAMAKIMKANPALYVLRERIRKGLQLYSSEPTEPYLSSQNYGELFSNQIIWFVDDTNVYRVTIHKTFEGNLTT KPINGAIFIFNPRTGQLFLKIIHTSVWAGQKRLGQLAKWKTAEEVAALIRSLPVEEQPKQIIVTRKGMLDPLEVH LLDFPNIVIKGSELQLPFQACLKVEKFGDLILKATEPQMVLFNLYDDWLKTISSYTAFSRLILILRALHVNNDRA KVILKPDKTTITEPHHIWPTLTDEEWIKVEVQLKDLILADYGKKNNVNVA

# 6/2682 FIGURE 4

MASKRALVILAKGAEEMETVIPVDVMRRAGIKVTVAGLAGKDPVQCSRDVVICPDASLEDAKKEGPYDVVVLPGG NLGAQNLSESAAVKEILKEQENRKGLIAAICAGPTALLAHEIGCGSKVTTHPLAKDKMMNGGHYTYSENRVEKDG LILTSRGPGTSFEFALAIVEALNGKEVAAQVKAPLVLKD

TTTTGTGAAGAGACGAAGACTGAGCGGTTGTGGCCGCGTTGCCGACCTCCAGCAGCAGTCGGCATTCTCTAACGC GCTCCATGAACTCCCGTGTATTCATTGGGAATCTCAACACTCTTGTGGTCAAGAAATCTGATGTGGAGGCAATCT TTTCGAAGTATGGCAAAATTGTGGGCTGCTCTGTTCATAAGGGCTTTGCCTTCGTTCAGTATGTTAATGAGAGAA ATGCCCGGGCTGCTGTAGCAGGAGGATGGCAGAATGATTGCTGGCCAGGTTTTAGATATTAACCTGGCTGCAG AGCCAAAAGTGAACCGAGGAAAAGCAGGTGTGAAACGATCTGCAGCGGAGATGTACGGGTCAGTAACAGAACACC CTTCTCCGTCCCCTCTACTCAGCTCCTCTTTTGACTTGGACTATGACTTTCAACGGGACTATTATGATAGGATGT ACAGTTACCCAGCACGTGTACCTCCTCCTCCTATTGCTCGGGCTGTAGTGCCCTCGAAACGTCAGCGTGTAT CAGGAAACACTTCACGAAGGGGCAAAAGTGGCTTCAATTCTAAGAGTGGACAGCGGGGATCTTCCAAGTCTGGAA AGTTGAAAGGAGATGACCTTCAGGCCATTAAGAAGGAGCTGACCCAGATAAAACAAAAAGTGGATTCTCCCTGG AAAACCTGGAAAAAATGGAAAAGGAACAGAGCAAACAAGCAGTAGAGATGAAGAATGATAAGTCAGAAGAGGAGC AGGAGGGGGACCTACTGGATGATGATGATGAAGATCGGGGGGATGACCAGCTGGAGTTGATCAAGGATGATG TAGAAATCTTATCCCATTATTTCTTTACCTAGGCGCTTGTCTAAGATCAAATTTTTCACCAGATCCTCTCCCCTA GTATCTTCAGCACATGCTCACTGTTCTCCCCATCCTTGTCCTTCCCATGTTCATTAATTCATATTGCCCCGCGCC TAGTCCCATTTTCACTTCCTTTGACGCTCCTAGTAGTTTTGTTAAGTCTTACCCTGTAATTTTTTGCTTTTAATTT TGATACCTCTTTATGACTTAACAATAAAAAGGATGTATGGTTTTTATCAACTGTCTCCAAAATAATCTCTTGTTA TGCAGGGAGTACAGTTCTTTCATTCATACATAAGTTCAGTAGTTGCTTCCCTAACTGCAAAGGCAATCTCATTT GCAGTTCAACACAAATGTAACAATTATTTTTGTGAATGAGAGTTGGCATGTCAAATGCATCCTCTAGAAAAATAA TTAGTGTTATAGTCTTAAGATTTGTTTTCTAAAGTTGATACTGTGGGATTTTTGTGAACAGCCTGATGTTTGGGA CCTTTTTTCCTCAAAATAAACAAGTCCTTATTAAACCAGGAATTTGGAG

# 8/2682 FIGURE 6

MASNVTNKTDPRSMNSRVFIGNLNTLVVKKSDVEAIFSKYGKIVGCSVHKGFAFVQYVNERNARAAVAGEDGRMI AGQVLDINLAAEPKVNRGKAGVKRSAAEMYGSVTEHPSPSPLLSSSFDLDYDFQRDYYDRMYSYPARVPPPPPIA RAVVPSKRQRVSGNTSRRGKSGFNSKSGQRGSSKSGKLKGDDLQAIKKELTQIKQKVDSLLENLEKMEKEQSKQA VEMKNDKSEEEQSSSSVKKDETNVKMESEGGADDSAEEGDLLDDDDNEDRGDDQLELIKDDEKEAEEGEDDRDSA NGG

 $\tt CCGACATGTTGAGTCATAAGACGCGTCGGTGTTGCAGTCTGTGTCCTTGGAGGTGACCAGGGCCACTGCAGGC\underline{AT}$ **G**GTGCTAGCAGAGCTGTACGTCTCTGACCGAGAGGGAAGCGATGCCACGGGAGATGGAACCAAGGAGAAACCATT TAAAACAGGTCTAAAGGCTTTGATGACAGTAGGGAAAGAACCATTTCCTACCATTTACGTAGATTCACAAAAAGA AAATGAGAGGTGGAATGTTATTTCTAAATCACAGTTGAAGAACATTAAAAAGATGTGGCATAGGGAACAAATGAA GAGTGAATCCCGGGAAAAGAAAGAAGGCAGAAGATAGTTTACGAAGAAAAAGAACCTGGAAGAAGCAAAGAAGAT TACCATTAAAAATGATCCAAGTCTCCCAGAGCCAAAATGTGTGAAGATTGGTGCGTTAGAAGGATATAGAGGCCA AAGAGTAAAGGTGTTTGGCTGGGTCCACAGGCTGCGCAGGCAAGGAAAGAATTTAATGTTTCTGGTGTTGCGAGA TGGTACAGGTTATCTTCAGTGTGTCTTGGCGGATGAGTTGTCTAGTGCTACAATGGAGTTCTCTTGTCCACGGA GAGCAGTGTTGCAGTGTATGGAATGCTAAATCTTACCCCAAAGGGCAAGCAGGCTCCAGGTGGCCATGAGCTGAG TTGTGACT/TCTGGGAACTAATTGGGTTGGCCCCTGCTGGAGGAGCTGACAACCTGATCAATGAGGAGTCTGACGT TGATGTCCAGCTCAACAACAGACACATGATGATCCGAGGAGAAAACATGTCCAAAATCCTAAAAGCACGATCCAT GGTCACCAGGTGCTTTAGAGATCACTTCTTTGATAGGGGGTACTATGAAGTTACTCCTCCAACATTAGTGCAAAC ACAAGTAGAAGGTGGTGCCACACTCTTCAAGCTTGACTATTTTGGGGAAGAGGCATTTTTGACTCAATCCTCTCA GTTGTACTTGGAGACCTGCCTCCCAGCCCTGGGAGATGTTTTTTGTATTGCTCAGTCATACCGGGCAGAGCAGTC CAGAACACGAAGGCACCTGGCTGAGTACACTCACGTGGAAGCTGAGTGTCCTTTCCTGACTTTTGACGACCTCCT GAACCGGTTGGAGGACTTGGTTTGTGATGTGGTAGATCGAATATTGAAGTCACCTGCAGGGAGCATAGTGCATGA GCTCAACCCGAACTTTCAGCCCCCCAAACGGCCTTTCAAACGGATGAACTATTCAGATGCTATCGTTTGGCTAAA AGAACATGATGTAAAGAAAGAAGATGGAACTTTCTATGAATTTGGAGAAGATATCCCAGAAGCTCCTGAGAGACT GATGACAGACACCATTAATGAACCAATCTTGCTGTGTCGATTTCCTGTGGAGATCAAGTCCTTCTACATGCAGCG ATGTCCTGAGGATTCCCGTCTTACTGAATCTGTCGACGTGTTGATGCCCCAATGTTGGTGAGATTGTGGGAGGCTC AATGCGTATCTTTGATAGTGAAGAAATACTGGCAGGTTATAAAAGGGAAGGGATTGACCCCACTCCCTATTACTG GTATACGGATCAGAGAAAATACGGTACATGTCCCCATGGAGGATATGGCTTGGGCTTGGAACGATTCTTAACGTG  ${\tt GATTCTGAATAGGTATCACATCCGAGACGTGTGCTTATACCCTCGATTTGTCCAGCGTTGCACGCCA} {\color{red}{\textbf{TAA}}} {\tt CCATT}$ TTCTCCAGAAGCGTGGAGGAAAGATTATGAAAGGAACAGGCTCTTTAAAAAAAGAAAACAAAAAGCCAGAATCTTC ACATCAAGTGATATTAAGGTTGTCATCTTAAGAAAAAATATCCATTTTTTTCTTAAGTTCGGGAAACAAAGTTCG GGGAAAATACCTGGCATGAAACTGTAGTTAGGGATACATTTCAGCATTTTACTCACTTTATCCAAGTTATTCATT TTATTCAAGTTATATGTATGTATAATTCAACAATTTTAGATTATGGTGTAAGATACTCCAGTAACTTATCTTTCT GAAATTGGCAATATCGTATAAAAATCTGCTCATATTAGAACACAGTATAATTCAGCAGTAAACACTAGAATCAAA TGAATAGCCTTTTGTATCAGTTATTAATCTTTTCTAACTCTGCTTAGCTGCTAATAATCCTGAGGCATAGAAATT GAAGAATTTGTAAAAATAGAATTGCCTTAAAGGATTTGAAGTAAGAACATAATTTTGGGGAGAGTTTTTTAGTGA GTAATTAAGAATAAATAAGTTCCAAAAGAAATTGTAGCTGGAATCTTAATAACAATTGTGAGTGGCTGTTTGAGT TGCCCCCACCATGTCCTTAGATCTAATCTGTGCTACCTTATTAACTCACAGCAGGCTTACTGAATGGCTTCATTT CAGATTTAGTTGATTTCTCCACCAAATGCATGTCATGTATTCTCAATAGGCTGTATTCCCCAGCAGTCAATAAATG AACACCCGTAAAAA

#### 10/2682 FIGURE 8

MVLAELYVSDREGSDATGDGTKEKPFKTGLKALMTVGKEPFPTIYVDSQKENERWNVISKSQLKNIKKMWHREQM KSESREKKEAEDSLRREKNLEEAKKITIKNDPSLPEPKCVKIGALEGYRGQRVKVFGWVHRLRRQGKNLMFLVLR DGTGYLQCVLADELCQCYNGVLLSTESSVAVYGMLNLTPKGKQAPGGHELSCDFWELIGLAPAGGADNLINEESD VDVQLNNRHMMIRGENMSKILKARSMVTRCFRDHFFDRGYYEVTPPTLVQTQVEGGATLFKLDYFGEEAFLTQSS QLYLETCLPALGDVFCIAQSYRAEQSRTRRHLAEYTHVEAECPFLTFDDLLNRLEDLVCDVVDRILKSPAGSIVH ELNPNFQPPKRPFKRMNYSDAIVWLKEHDVKKEDGTFYEFGEDIPEAPERLMTDTINEPILLCRFPVEIKSFYMQ RCPEDSRLTESVDVLMPNVGEIVGGSMRIFDSEEILAGYKREGIDPTPYYWYTDQRKYGTCPHGGYGLGLERFLT WILNRYHIRDVCLYPRFVQRCTP

GCATCCCGGCCCCGGGCGCCCGGGGGGGCCCAGGGAGCCACAGGGCTGACTGGTCTGCCCGGGCCCAGG AGTGCCTGGTGTAGCAGTCGCGGAGCCATCCCGGCGTCTGCTGCCATGACCGACTCTCCCCTCAGAGGAGACTCT TCCTCAGCGGTGGCTGCAGAGACAGATGAGCGGCGCGCTCCTGGCCGCGGGACCGTGAGACGGGTTCGTGGCCGGC CATTTAGGGGGACGCTGCGACCACCGCCTGCGCCCCTCCGGACTGGTTCCTTGGGCCCCGGAAGCTCGCGGCGGG CGGCCGCCTCTACTCCGAGAGCTCACGCCGCGTTCTCCTCGGCCGCCTCTGGCGCCGGCTGCACGGCCGTCCTGG CCATGCCTCTGCCTTGATGGCGGCGTTAGCCGGCGTCTTCGTTTGGGACGAGGAGGAGGATCCAGGAGGAGGAGTT GCAGAGATCTATTAATGAGATGAAGCGGTTGGAAGAAATGTCAAATATGTTTCAGAGCTCTGGAGTCCAGCACCA CCCTCCAGAACCAAAAGCCCAAACAGAAGGGAATGAAGATTCAGAGGGCAAAGAGCAACGTTGGGAAATGGTGAT CTACACAGATGTGACACCTCGGCAGTTCTTCAATGTTCAGCTGGACACAGAGTATAGAAAAAAATGGGATGCCCT GGTAATCAAGCTGGAGGTGATTGAGAGGGATGTGGTTAGTGGTTCCGAGGTTCTTCACTGGGTAACCCATTTTCC TTATCCAATGTACTCACGGGATTATGTTTATGTTCGGCGGTATAGTGTGGATCAGGAAAACAACATGATGGTGTT GGTGTCGCGTGCTGTGGAGCATCCGAGTGTGCCAGAGTCTCCAGAATTCGTCAGGGTCAGATCATATGAATCCCA AACGGTGTTTCCTCGCTACTGTTTAGTTGGATGGTTTCCAGTGGCATGCCAGATTTCCTGGAGAAGCTGCACAT GGCCACTCTGAAAGCCAAGAATATGGAGATTAAAGTAAAGGACTACATCTCAGCTAAGCCTCTGGAAATGAGTAG TGAAGCCAAGGCCACCAGCCAGTCCTCTGAGCGAAAGAACGAGGGCAGCTGTGGCCCTGCTCGGATTGAGTATGC TTGACAGGCTTTGGGATAAGAAGGGACAAGGTGCTTCTAGCCCTGTCTCAGTCCGTTATCACTCTGCTGTAGAAG GGGGACATGCCACATGTATTAGAAGGCATCTGCTGTAACTTCCAGTGCAAGATAATTCAATAACTGATGTCCCAT TTCATTCAGAGCCCTTATTGCTCTTATCAAAACAGAAGAAGACTACATTTGTGGGAGTGTTGTCATATTCTCAGG CCAACTGTTTTGAAATTCGGTATCTCACTGAGCTAATCTGGAACAAACCTCTCACCTCAGGCCAGAAGGGGATGA CCTCCATTTGCTTCTCTGAGTAGTTTCCTCTGCTGACATTCCAAATCCCACCATCGATTGTGCAGCGCTTTGGAT TTCCTTCAGTTCTCCAGGTCCACCTGGAAAGTATAGTTGGCCAGTTGAGTCTCTCAAATGAGGGGCTACTGGGAG TGCTCTTGGTAACAATCATGATGTGAATGGGTGTGAACGATACTTGGCTATGTTAAGTGCCTTGTCCGCACCTTG TGCACAATATCACCCATTGACTCACCTTATCCAAAGCAAGTTTCCTGTGAATCGGCCAGTTCTTCTATATTCATT GGATCATTGCCTCCTTCCTAACCTTCCCCATTTACCAAGAACACTGGGAGACTAATCCTTTTAGATAGTAGCTTT TTGATGCTCAAAACATCACATTTAAATTTAGTTTAAAAATTTTTTAACTTTTGTGTCAAATAGGAGTTGAGGAAT TGAGCAGGATTCTACCCTAGTCCGATTGTATAGAAAACACCATTTTGATTCAGGTATTATTTTTCATATTTCAGG TTTGACTTGTTCTTTTCAGAAGGCTAAAGTCAGAGGAATGGGGGCCTGGGCCACTCCCTTGGAGCTCTCAGATCTA CAGACAAGCTGTGTGAATGCATAGATGTAATCTTGTCTCAAATACTAATACAGTGGAGATTTGGTTTATGTTACC ATTAAGTTCCTCTAAAAAGTTTTTCTTCCTCTCTCAGAGCCAAAATAAAAGTGAACTACACTGTTCAGATAAGG TCACAATCTGATGCTGTCAGTTTGACCGAGCTGGTTTTGCTTATGGTCATGCTGCAATTTGTTAGAATAATAGGG TTGTTTTCCTGCTTGCTACTGTTTTGTGGTGTTGAAAAGTGGTTTAAACCTGAGACTAACTTAAACACTTCCTTG ACCTTCTTGTTGCCTGTTCATTTTTGTGCCAAGGAAGTAGCTGCCCCAGTGTATGTCTTGCCTTCTCCGCGTCAT TGTTGGAAGAGGAGATGCATCGAGCAGTCCCAGCTGCTTTTCATTTATTACTTCTTTCCAGGACCTGACA GAAGTCAGGGAAGAGTCCCTGGGTTATGTCCAAACTTAGCACCTGCAATTGTTGGGATGTGGATGTGTGCA AAAAAAAAA

# FIGURE 10

MAALAGVFVWDEERIQEEELQRSINEMKRLEEMSNMFQSSGVQHHPPEPKAQTEGNEDSEGKEQRWEMVMDKKHF KLWRRPITGTHLYQYRVFGTYTDVTPRQFFNVQLDTEYRKKWDALVIKLEVIERDVVSGSEVLHWVTHFPYPMYS RDYVYVRRYSVDQENNMMVLVSRAVEHPSVPESPEFVRVRSYESQMVIRPHKSFDENGFDYLLTYSDNPQTVFPR YCVSWMVSSGMPDFLEKLHMATLKAKNMEIKVKDYISAKPLEMSSEAKATSQSSERKNEGSCGPARIEYA

GCAACCTTTCCAAGGGAGTGGTTGTGTGATCGCCATCTTAGGGAAAAG<u>ATG</u>TTCTCGTCCGTGGCGCACCTGGCG CGGGCGAACCCCTTCAACACGCCACATCTGCAGCTGGTGCACGATGGTCTCGGGGACCTCCGCAGCAGCTCCCCA GGGCCCACGGGCCAGCCCCGCCGCCCTCGCAACCTGGCAGCCGCCGCCGTGGAAGAGCAGTATAGCTGTGACTAT GGATCTGGCAGATTCTTTATCCTTTGTGGACTTGGAGGAATTATTAGCTGTGGCACAACACATACAGCATTGGTT CCTCTAGATCTGGTTAAATGCAGAATGCAGGTGGACCCCCAAAAGTACAAGGGCATATTTAACGGATTCTCAGTT ACACTTAAAGAGGATGGTGTTCGTGGTTTGGCTAAAGGATGGGCTCCGACTTTCCTTGGCTACTCCATGCAGGGA CTCTGCAAGTTTGGCTTTTATGAAGTCTTTAAAGTCTTGTATAGCAATATGCTTGGAGAGGAGAATACTTATCTC TGGCGCACATCACTATATTTGGCTGCCTCTGCCAGTGCTGAATTCTTTGCTGACATTGCCCTGGCTCCTATGGAA GCTGCTAAGGTTCGAATTCAAACCCAGCCAGGTTATGCCAACACTTTGAGGGATGCAGCTCCCAAAATGTATAAG GAAGAAGGCCTAAAAGCATTCTACAAGGGGGTTGCTCCTCTCTGGATGAGACAGATACCATACACCATGATGAAG TTCGCCTGCTTTGAACGTACTGTTGAAGCACTGTACAAGTTTGTGGTTCCTAAGCCCCGCAGTGAATGTTCAAAG CCAGAGCAGCTGGTTGTAACATTTGTAGCAGGTTACATAGCTGGAGTCTTTTGTGCAATTGTTTCTCACCCTGCT GATTCTGTGGTATCTGTGTTGAATAAAGAAAAAGGTAGCAGTGCTTCTCTGGTCCTCAAGAGACTTGGATTTAAA GGTGTATGGAAGGGACTGTTTGCCCGTATCATCATGATTGGTACCCTGACTGCACTACAGTGGTTTATCTATGAC TCCGTGAAGGTCTACTTCAGACTTCCTCGCCCTCCCCCACCTGAGATGCCAGAGTCTCTGAAGAAAAAGCTTGGG TTAACTCAG<u>TAG</u>TTAGATCAAAGCAAATGTGGACTGAATCTGCTTGTTGATCAGTGTTTGAAGAAAGTGCAAAAG GAACTTTTATATTTTGACAGTGTAGGAAATTGTCTATTCCTGATATAATTACTGTAGTACTCTTGCTTAAGGCA AGAGTTTCAGATTTACTGTTGAAATAAACCCAACTGTTCATGAAAAAA

# 14/2682 FIGURE 12

MFSSVAHLARANPFNTPHLQLVHDGLGDLRSSSPGPTGQPRRPRNLAAAAVEEQYSCDYGSGRFFILCGLGGIIS CGTTHTALVPLDLVKCRMQVDPQKYKGIFNGFSVTLKEDGVRGLAKGWAPTFLGYSMQGLCKFGFYEVFKVLYSN MLGEENTYLWRTSLYLAASASAEFFADIALAPMEAAKVRIQTQPGYANTLRDAAPKMYKEEGLKAFYKGVAPLWM RQIPYTMMKFACFERTVEALYKFVVPKPRSECSKPEQLVVTFVAGYIAGVFCAIVSHPADSVVSVLNKEKGSSAS LVLKRLGFKGVWKGLFARIIMIGTLTALQWFIYDSVKVYFRLPRPPPPPEMPESLKKKLGLTQ

CTGGAAGCGGGCGAGTCTCGTGCTGTCGGACCTGCAGCCCTGGCCTTCCGCCACC<u>ATG</u>GAGTACCTCATCGG TATCCAAGGCCCCGACTATGTTCTTGTCGCCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGA TCATGACAAGATGTTTAAGATGAGTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTT TGCAGAATATATTCAGAAAAACGTGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCCACGGCAGCAGC CTATGATGAGCATGAAGGGCCAGCGCTGTATTACATGGACTACCTGGCAGCCCTTGGCCAAGGCCCCTTTTGCAGC CCACGGCTATGGTGCCTTCCTGACTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGC AGTGGAACTCCTTAGGAAATGTCTGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTCG TAAATGGTTAATTCAGAATAAAGGTGACTATGGATATAATTGAGCCCTCTGGTCCAGGTCTCAGTTTACCTAATA TTACCTCAGAAAGGATATGGAGGGAAGATGATCTTTTTGCCAGGTCTGACTTTTCTTCCTGCTCCGCCCTCCATT AACGCTCAGTACCCTTTAGCAGCTGACGGCCCCACGTTCTACTCCATGCTTGGCTTCCTTTCCAACTAGCTCTTT CATATATTTTACTTGCTAGTATCTCCATTCTCTCTAAAGTAGTGGTTCTTTTTGCCCTTAAACTTAAATTTTTAA ATTAATTAACCTGAATTAATAATACATGCACTTAATGTAACATGCAAACAGTACAAAAACATGTAGTGAAAAAATA AGGTCAAGAGAGCGAGACCATCCTGACCAACATGGTGAAAACCCCGTCTCTGCTAAAAATACAAAAATTAGCTGGG CGTGGTGGCACCCCTAGTCCCAGCTACTGGGGAGGCTGAGACGGGAGAATCGGTCGAACCCGGGAGGCGGA GGAAAAATGTTTCTTCCATCCCTATAATCCAGTCATCTGCTTCCTGCTTCCCTTCCTGGAGGAAACTTCAGCTAC AATTTTTTAGATTTATTTATTTAGAGACAGGGTCTCACTCTAGCCCAGGCTGGAGTGCTGTGGCGTAATCT TGGCTCACTGCAACCTCCGCCTCCCGGGCCCAAGTGATCCTCCCGTCTCAGCCTCCTGAGTAGCTGGGATTACAG GCGCACACCACCAATGCCCAGCTAGTTTTTGTGTTTTTCATAGAGACAGGGTCTCACCATGTCATTCAAGACCAG CCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAAAATATATAACAATTAGCCAGGCGTGGTGGCACACGCCT GTAAACCCAACTACTTGGGAGGCTGAGGCAGGAGAATTGCTTGAGCCCGGGAGAGGGGAGGTTGCAGTGAGCCGAG ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# 16/2682 FIGURE 14

MEYLIGIQGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL SPTAAANFTRRNLADCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFLTLSILDRYYTPT ISRERAVELLRKCLEELQKRFILNLPTFSVRIIDKNGIHDLDNISFPKQGS

ACAGGCATTTTCCAAAGGCAAGCCTGGAGCGCACGGATCTGTATAACCGCGGAAGGCCCTGTTTCCGGTCCCTTG CGCCTGCGCTCTTGCAGCCAAGAAGGCGGGAGGCTGGAGTAGAGGGAAGCCTGCAACCGGAAGTGAAGGCAGATT TCCCTCCTTCGTCGCTGTTGCTGCCGCCATACGCGCTCTCCCTGTTTAGTTATGGCAGAAACGATGTGGACAAT GAGCTCTTGGACTATGAAGATGATGAGGTGGAGACAGCAGCTGGGGGAGATGGGGCTGAGGCCCCTGCCAAGAAG GATGTCAAGGGCTCCTATGTCTCCATCCACAGCTCTGGCTTTCGTGACTTCCTGCTCAAGCCAGAGTTGCTCCGG GCCATTGTCGACTGTGGCTTTGAGCATCCGTCAGAAGTCCAGCATGAGTGCATCCCTCAGGCCATTCTGGGAATG GATGTCCTGTGCCAGGCCAAGTCGGGCATGGGAAAGACAGCAGTGTTTGTCTTGGCCACACTGCAACAGCTGGAG CCAGTTACTGGGCAGGTGTCTGTGCTGGTGATGTGTCACACTCGGGAGTTGGCTTTTCAGATCAGCAAGGAATAT GAGGTGCTGAAGAAGAACTGCCCGCATATCGTCGTGGGGACTCCAGGCCGTATCCTAGCCCTGGCTCGAAATAAG AGCCTCAACCTCAAACACATTAAACACTTTATTTTGGATGAATGTGATAAGATGCTTGAACAGCTCGACATGCGT CGGGATGTCCAGGAAATTTTTCGCATGACCCCCCACGAGAAGCAGGTCATGATGTTCAGTGCTACCTTGAGCAAA GAGATCCGTCCAGTCTGCCGCAAGTTCATGCAAGATCCAATGGAGATCTTCGTGGATGATGAGACGAAGTTGACG CTGCATGGGTTGCAGCAGTACTACGTGAAACTGAAGGACAACGAGAAGAACCGGAAGCTCTTTGACCTTCTGGAT GTCCTTGAGTTCAACCAGGTGGTGATCTTTGTGAAGTCTGTGCAGCGGTGCATTGCCTTGGCCCAGCTACTAGTG GAGCAGAACTTCCCAGCCATTGCCATCCACCGTGGGATGCCCCAGGAGGAGAGGCTTTCTCGGTATCAGCAGTTT AAAGATTTTCAACGACGAATTCTTGTGGCTACCAACCTATTTGGCCGAGGCATGGACATCGAGCGGGTGAACATT AAGGGCTTGGCTATCACATTTGTGTCCGATGAGAATGATGCCAAGATCCTCAATGATGTGCAGGATCGCTTTGAG GTCAATATTAGTGAGCTGCCTGATGAGATAGACATCTCCTCCTACATTGAACAGACACGGTAGAAGACTCGCCCA TTTTGGAATGTGACCGTCTGTCCTTCAGGAGAGACACCAGGGTGGGGGTGAAGGAGACACTACTGCCCCCACCC CTGACAGCCCCACCCCATGGCTTCCATCTTTTGCATCACCACCACTCCTGAACCCCCATTTCTGATTTGTCAGA 

# 18/2682 FIGURE 16

MAENDVDNELLDYEDDEVETAAGGDGAEAPAKKDVKGSYVSIHSSGFRDFLLKPELLRAIVDCGFEHPSEVQHEC IPQAILGMDVLCQAKSGMGKTAVFVLATLQQLEPVTGQVSVLVMCHTRELAFQISKEYERFSKYMPNVKVAVFFG GLSIKKDEEVLKKNCPHIVVGTPGRILALARNKSLNLKHIKHFILDECDKMLEQLDMRRDVQEIFRMTPHEKQVM MFSATLSKEIRPVCRKFMQDPMEIFVDDETKLTLHGLQQYYVKLKDNEKNRKLFDLLDVLEFNQVVIFVKSVQRC IALAQLLVEQNFPAIAIHRGMPQEERLSRYQQFKDFQRRILVATNLFGRGMDIERVNIAFNYDMPEDSDTYLHRV ARAGRFGTKGLAITFVSDENDAKILNDVQDRFEVNISELPDEIDISSYIEQTR

# 19/2682 FIGURE 17

# 20/2682 FIGURE 18

 ${\tt MSHTILLVQPTKRPEGRTYADYESVNECMEGVCKMYEEHLKRMNPNSPSITYDISQLFDFIDDLADLSCLVYRAD}\\ {\tt TQTYQPYNKDWIKEKIYVLLRRQAQQAGK}$ 

TTTGGTTCCAGAGGAGGCCCAGGAGGAGGGTTCAGGCCCTTTGTACCACATATCCCATTTGACTTCTATTTGTGT CTGATTGTGGCTCCAGGGACATTTGAAGTGCAAATTGAAGAAGTTCGACAGGTGGGATCCTATAAAAAGGGGACA ATGACTACAGGACACAATGTGGCTGACCTGGTGGTGATACTCAAGATTCTGCCAACGTTGGAAGCTGTTGCTGCC CTGGGGAACAAGTCGTGGAAAGCCTAAGAGCACAGGATCCTTCTGAAGTTTTAACCATGCTGACCAACGAAACT GGCTTTGAAATCAGTTCTTCTGATGCTACAGTGAAGATTCTCATTACAACAGTGCCACCCAATCTTCGAAAACTG GATCCAGAACTCCATTTGGATATCAAAGTATTGCAGAGTGCCTTAGCAGCCATCCGACATGCCCGCTGGTTCGAG GAAAATGCTTCTCAGTCCACAGTTAAAGTTCTCATCAGACTACTGAAGGACTTGAGGATTCGTTTTCCTGGCTTT GAGCCCCTCACACCCTGGATCCTTGACCTACTAGGCCATTATGCTGTGATGAACAACCCCACCAGACAGCCTTTG GCCCTAAACGTTGCATACAGGCGCTGCTTGCAGATTCTGGCTGCAGGACTGTTCCTGCCAGGTTCAGTGGGTATC ACTGACCCCTGTGAGAGTGGCAACTTTAGAGTACACACAGTCATGACCCTAGAACAGCAGGACATGGTCTGCTAT ACAGCTCAGACTCTCGTCCGAATCCTCTCACATGGTGGCTTTAGGAAGATCCTTGGCCAGGAGGGTGATGCCAGC TATCTTGCTTCTGAAATATCTACCTGGGATGGAGTGATAGTAACACCTTCAGAAAAGGCTTATGAGAAGCCCACCA GAGAAGAAGGAAGGAGGAAGAAGAAGAATACAGAAAGAACCACCTCAAGGAGGAAGAAGAAAAGCATGGA  ${\tt AACTCAGGAGTGACATTCCCTTCACTCCTTTTCCTACCCAAGGGAAAGACTGGAGCC} \underline{{\tt TAA}}{\tt GCTGCCTGCTACTGG}$ CTTTACATGGTGACAGACATTCCGTGGATAGGAAGATAGCAGGAGAAAGTAACTCCATAGAGTGTCATTCCACTG CTTCCTAATATTCTATAATCTCCAACTCCTGAAAACCCCTCTCTCAACTAATACTTTGCTGTTGAAATGTTGTGA AATGTTAAGTGTCTGGAAATTTTTTTTTTTTCTAAGAAAAACTATTAAAGTACTT

# 22/2682 FIGURE 20

MRGDRGRGRGGRFGSRGGPGGGFRPFVPHIPFDFYLCEMAFPRVKPAPDETSFSEALLKRNQDLAPNSAEQASIL SLVTKINNVIDNLIVAPGTFEVQIEEVRQVGSYKKGTMTTGHNVADLVVILKILPTLEAVAALGNKVVESLRAQD PSEVLTMLTNETGFEISSSDATVKILITTVPPNLRKLDPELHLDIKVLQSALAAIRHARWFEENASQSTVKVLIR LLKDLRIRFPGFEPLTPWILDLLGHYAVMNNPTRQPLALNVAYRRCLQILAAGLFLPGSVGITDPCESGNFRVHT VMTLEQQDMVCYTAQTLVRILSHGGFRKILGQEGDASYLASEISTWDGVIVTPSEKAYEKPPEKKEGEEEEENTE RTTSRRGRRKHGNSGVTFPSLLFLPKGKTGA

CTTTTCAAGATGCCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT TCTGATGCCTTGGACAAGATTCGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA ATTGACATCATCCCCAACCCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTCATGGAGGCTCTTCAGGCTGGTGCAGAC ATCTCCATGATTGGGCAGTTTGGTGTTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCTTTATTTGGAGAAGGAACGAGAG CCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAACTAAGAAGATC AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAACCCTGATGACATCACC CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCAGTCAAGCACTTTTCT GTAGAAGGTCAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGACCTTTTTGAGAACAAG AAGAAAAGAACAACATCAAACTCTATGTCCGCCGTGTGTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG AGCAAAATCTTGAAAGTCATTCGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAAC CGCCGCCGCCTGTCTGAGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACATCTCTGTCAGAGTAT GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA GCTTTTGTGGAGCGAGTGCGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTGACCAGCACCTACGGC TGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACTCCACCATGGGCTATATGATGGCC AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT GATAAGGCAGTTAAGGACCTGGTGGTGCTGTTTGAAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA GAGGAACCCAATGCTGCAGTTCCTGATGAGATCCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA GTCGAT<u>TAG</u>GTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC TCGAGTGCCCCTGTCCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTCCCTCTCCTGTCCTTGTGTTGAA GGCAGTAAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGTATTGTGGT **AAAAAAAAAAAAAAA** 

#### 24/2682 FIGURE 22

MPEEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLDSGKELKIDI
IPNPQERTLTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN
DDEQYAWESSAGGSFTVRADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI
SDDEAEEEKGEKEEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEKYIDQEELNKTKPIWTRNPDDITQEE
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLN
FIRGVVDSEDLPLNISREMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRR
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANSAFVERVRKRGFEVVYMTEPIDEYCVQQL
KEFDGKSLVSVTKEGLELPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA
NMERIMKAQALRDNSTMGYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVVLLFETALLSSGFSLEDPQT
HSNRIYRMIKLGLGIDEDEVAAEEPNAAVPDEIPPLEGDEDASRMEEVD

GCAAAACCAACGCCTGGCTCGGAGCAGCCTCTGAGGTGTCCCTGGCCAGTGTCCTTCCACCTGTCCACAAGC ATGGGGAACATCTTCGCCAACCTCTTCAAGGGCCTTTTTGGCAAAAAAGAAATGCGCATCCTCATGGTGGGCCTG GATGCTGCAGGGAAGACCACGATCCTCTACAAGCTTAAGCTGGGTGAGATCGTGACCACCATTCCCACCATAGGC CCCCTGTGGCGCCACTACTTCCAGAACACACAAGGCCTGATCTTCGTGGTGGACAGCAATGACAGAAGAGCGTGTG AACGAGGCCCGTGAGGAGCTCATGAGGATGCTGGCCGAGGACGAGCTCCGGGATGCTGTCCTCCTGGTGTTCGCC AGGAACTGGTACATTCAGGCCACCTGCGCCACCAGCGGCGACGGGCTCTATGAAGGACTGGACTGGCTGTCCAAT CAGCTCCGGAACCAGAAG<u>TGA</u>ACGCGACCCCCCTCCCTCTCACTCCTCTTGCCCTCTGCTTTACTCTCATGTGGC AAACGTGCGGCTCGTGGTGTGAGTGCCAGAAGCTGCCTCCGTGGTTTGGTCACCGTGTGCATCGCACCGTGCTGT TGGTACTCCTATGCAATATTACTCAGCTTTTTTTATTGTAAAAAGAAAAATCAACTCACTGTTCAGTGCTGAGAG GGGATGTAGGCCCATGGGCACCTGGCCTCCAGGAGTCGCTGTGTTGGGAGAGCCGGCCACGCCCTTGGCTTAGAG CTGTGTTGAAATCCATTTTGGTGGTTGGTTTTAACCCAAACTCAGTGCATTTTTTAAAATAGTTAAGAATCCAAG TCGAGAACACTTGAACACACAGAAGGGAGACCCCGCCTAGCATAGATTTGCAGTTACGGCCTGGATGCCAGTCGC CAGCCCAGCTGTTCCCCTCGGGAACATGAGGTGGTGGTGGTGGCGCAGCAGACTGCGATCAATTCTGCATGGTCACAG TAGAGATCCCCGCAACTCGCTTGTCCTTGGGTCACCCTGCATTCCATAGCCATGTGCTTGTCCCTGTGCTCCCAC GGTTCCCAGGGGCCAGGCTGGGAGCCCACAGCCACCCACTATGCCGCAGGCCGCCCTACCCACCTTCAGGCAGC CTATGGGACGCAGGCCCCATCTGTCCCTCGGTCCGCGTGTGGCCAGAGTGGTCCGTCGTCCCCAACACTCGTGCT CGCTCAGACACTTTGGCAGGATGTCTGGGGCCTCACCAGCAGGAGCGCGTGCAAGCCGGGCAGGCGGTCCACCTA TTTGCCATCGAAAAAGACAACCTCTACTTTTTCTTTTGTATTTTGATAAACACTGAAGCTGGAGCTGTTAAATT TATCTTGGGGAAACCTCAGAACTGGTCTATTTGGTGTCGTAGGAACCTCTTACTGCTTTCAATACACGATTAGTA ATCTCTTAACTATT

# 26/2682 FIGURE 24

MGNIFANLFKGLFGKKEMRILMVGLDAAGKTTILYKLKLGEIVTTIPTIGFNVETVEYKNISFTVWDVGGQDKIR PLWRHYFQNTQGLIFVVDSNDRERVNEAREELMRMLAEDELRDAVLLVFANKQDLPNAMNAAEITDKLGLHSLRH RNWYIQATCATSGDGLYEGLDWLSNQLRNQK

GCCTGCGCGGCGACGGGGCGTGGCCGCGGGCGAGTGGGGCCAAGGAGGCAGCCGGGAGCGGGGGCGCAGGTGTTA AGAAA<u>ATG</u>GCGGCAGGGGTCGAAGCGGCGGCGGAGGTGGCGGCGACGGAGATCAAAATGGAGGAAGAGAGCGGCG CGCCCGGCGTGCCGAGCGGCAACGGGGCTCCGGGCCCTAAGGGTGAAGGAGAACGACCTGCTCAGAATGAGAAGA GGAAGGAGAAAACATAAAAAGAGGAGGCAATCGCTTTGAGCCATATGCCAATCCAACTAAAAGATACAGAGCCT TCATTACAAACATACCTTTTGATGTGAAATGGCAGTCACTTAAAGACCTGGTTAAAGAAAAAAGTTGGTGAGGTAA CATACGTGGAGCTCTTAATGGACGCTGAAGGAAAGTCAAGGGGATGTGCTGTTGTTGAATTCAAGATGGAAGAGA GCATGAAAAAAGCTGCGGAAGTCCTAAACAAGCATAGTCTGAGCGGAAGACCACTGAAAGTCAAAGAAGATCCTG ATGGTGAACATGCCAGGAGAGCAATGCAAAAGGTGATGGCTACGACTGGTGGGATGGGTATGGGACCAGGTGGCC CAGGAATGATTACTATCCCACCCAGTATCCTAAATAATCCCAACATCCCAAATGAGATTATCCATGCATTACAGG TTAGTATGGCTGGTGGTGGTCCGAGCAGACATTCTTGAAGATAAAGATGGAAAAAGTCGTGGAATAGGCACTG TTACTTTTGAACAGTCCATTGAAGCTGTGCAAGCTATATCTATGTTCAATGGCCAGCTGCTATTTGATAGACCAA TGCACGTCAAGATGGATGAGAGGGCCTTACCAAAAGGAGATTTCTTCCCTCCTGAGCGTCCACAACAACTTCCCC ATGGCCTTGGTGGTATTGGCATGGGGTTAGGACCAGGAGGGCAACCCATTGATGCCAATCACCTGAATAAAGGCA TGGAGGGGCCCTTTGGTGGTGTATGGAAAACATGGGTCGATTTGGATCTGGGATGAACATGGGCAGGATAAATG AAATCCTAAGTAATGCACTGAAGAGAGAGAGATCATTGCAAAGCAGGGAGGAGGTGGAGGTGGAGGAAGCGTCC CTGGGATCGAGAGGATGGGTCCTGGCATTGACCGCCTCGGGGGTGCCGGCATGGAGCGCATGGGCGCGGGCCTGG GCCACGGCATGGATCGCGTGGGCTCCGAGATCGAGCGCATGGGCCTGGTCATGGACCGCATGGGCTCCGTGGAGC GCATGGGCTCCGGCATTGAGCGCATGGGCCCGCTGGGCCTCGACCACATGGCCTCCAGCATTGAGCGCATGGGCC AGACCATGGAGCGCATTGGCTCTGGCGTGGAGCGCATGGGTGCCGGCATGGGCTTCGGCCTTGAGCGCATGGCCG CTCCCATCGACCGTGTGGGCCAGACCATTGAGCGCATGGGCTCTGGCGTGGAGCGCATGGGCCCTGCCATCGAGC GCATGGGCCTGAGCATGGAGCGCATGGTGCCCGCAGGTATGGGAGCTGGCCTGGAGCGCATGGGCCCCGTGATGG ATCGCATGGCCACCGGCCTGGAGCGCATGGGCCCAACAATCTGGAGCGGATGGGCCTGGAGCGCATGGGCGCCA ACAGCCTCGAGCGCATGGGCCTGGAGCGCATGGGTGCCAACAGCCTCGAGCGCATGGGCCCCGCCATGGGCCCCGG CCCTGGGCGCTGGCATTGAGCGCATGGGCCATGGGTGGCGGTGCCAGCTTTGACCGTGCCATCG AGATGGAGCGTGGCAACTTCGGAGGAAGCTTCGCAGGTTCCTTTGGTGGAGCTGGAGGCCATGCTCCTGGGGTGG CCAGGAAGGCCTGCCAGATATTTGTGAGAAATCTGCCATTCGATTTCACATGGAAGATGCTAAAGGACAAATTCA TCGAGTCGCCAGAGGTGGCCGAGAGAGCCTGCCGGATGATGAATGGCATGAAGCTGAGTGGCCGAGAGATTGACG  ${\tt TTCGAATTGATAGAAACGCT} \underline{{\tt TAA}}{\tt GCAGTTGCCTTTTTTAAACATCGATACGAGACCTCTGAATTTGTATTTTTTC}$ TTGTTAACCATTTTAATTTGTTGGCTGGATGTATAAAGATGTTTAAAAAATTCAGTTGCTTTTTTGGGGTAATTTG AAA

#### 28/2682 FIGURE 26

MAAGVEAAAEVAATEIKMEEESGAPGVPSGNGAPGPKGEGERPAQNEKRKEKNIKRGGNRFEPYANPTKRYRAFI
TNIPFDVKWQSLKDLVKEKVGEVTYVELLMDAEGKSRGCAVVEFKMEESMKKAAEVLNKHSLSGRPLKVKEDPDG
EHARRAMQKVMATTGGMGMGPGGPGMITIPPSILNNPNIPNEIIHALQAGRLGSTVFVANLDYKVGWKKLKEVFS
MAGVVVRADILEDKDGKSRGIGTVTFEQSIEAVQAISMFNGQLLFDRPMHVKMDERALPKGDFFPPERPQQLPHG
LGGIGMGLGPGGQPIDANHLNKGIGMGNIGPAGMGMEGIGFGINKMGGMEGPFGGGMENMGRFGSGMNMGRINEI
LSNALKRGEIIAKQGGGGGGGSVPGIERMGPGIDRLGGAGMERMGAGLGHGMDRVGSEIERMGLVMDRMGSVERM
GSGIERMGPLGLDHMASSIERMGQTMERIGSGVERMGAGMGFGLERMAAPIDRVGQTIERMGSGVERMGPAIERM
GLSMERMVPAGMGAGLERMGPVMDRMATGLERMGANNLERMGLERMGANSLERMGLERMGANSLERMGPAMGPAL
GAGIERMGLAMGGGGGASFDRAIEMERGNFGGSFAGSFGGAGGHAPGVARKACQIFVRNLPFDFTWKMLKDKFNE
CGHVLYADIKMENGKSKGCGVVKFESPEVAERACRMMNGMKLSGREIDVRIDRNA

CGGCGCCATTAAAGCGAGGAGGAGGCGAGAGCGGCCGCCGCTGGTGCTTATTCTTTTTAGTGCAGCGGGAGAGA GCGGGAGTGTGCGCCGCGCGAGAGTGGGAGGCGAAGGGGGCAGGCCAGGGAGAGCCGCAGGAGCCTTTGCAGCCA GTGGCGGCACACAGGGGGCAGCGGCGGCGGGAAGCGGAGCCGGGACCGGGGCGGAACCGCGTCTGGAGGC ACCGAAGGGGGCAGCGCCGAGTCGGAGGGGGGGGAAGATTGACGCCAGTAAGAACGAGGAGGATGAAGGCCATTCA AACTCCTCCCCACGACACTCTGAAGCAGCGACGGCACAGCGGGAAGAATGGAAAATGTTTATAGGAGGCCTTAGC TGGGACACTACAAAGAAAGATCTGAAGGACTACTTTTCCAAATTTGGTGAAGTTGTAGACTGCACTCTGAAGTTA GATCCTATCACAGGGCGATCAAGGGGTTTTGGCTTTGTGCTATTTAAAGAATCGGAGAGTGTAGATAAGGTCATG GATCAAAAAGAACATAAATTGAATGGGAAGGTGATTGATCCTAAAAGGGCCCAAAGCCATGAAAACAAAAGAGCCG GTTAAAAAAATTTTTGTTGGTGGCCTTTCTCCAGATACACCTGAAGAGAAAATAAGGGAGTACTTTGGTGGTTTT GGTGAGGTGGAATCCATAGAGCTCCCCATGGACAACAAGACCAATAAGAGGCGTGGGTTCTGCTTTATTACCTTT AAGGAAGAACCAGTGAAGAAGATAATGGAAAAGAAATACCACAATGTTGGTCTTAGTAAATGTGAAATAAAA GTAGCCATGTCGAAGGAACAATATCAGCAACAGCAACAGTGGGGGATCTAGAGGAGGATTTGCAGGAAGAGCTCGT GGAAGAGGTGGTGGCCCCAGTCAAAACTGGAACCAGGGATATAGTAACTATTGGAATCAAGGCTATGGCAACTAT GGATATAACAGCCAAGGTTACGGTGGTTATGGAGGATATGACTACACTGGTTACAACAACTACTATGGATATGGT GATTATAGCAACCAGCAGAGTGGTTATGGGAAGGTATCCAGGCGAGGTGGTCATCAAAATAGCTACAAACCATAC TAAATTATTCCATTTGCAACTTATCCCCAACAGGTGGTGAAGCAGTATTTTCCAATTTGAAGATTCATTTGAAGG TGGCTCCTGCCACCTGCTAATAGCAGTTCAAACTAAATTTTTTGTATCAAGTCCCTGAATGGAAGTATGACGTTG GGTCCCTCTGAAGTTTAATTCTGAGTTCTCATTAAAAGAAATTTGCTTTCATTGTTTTATTTCTTAATTGCTATG CTTCAGAATCAATTTGTGTGTTATGCCCTTTCCCCCAGTATTGTAGAGCCAAGTCTTGTGTTAAAAGCCCAGTGTG ACAGTGTCATGATGTAGTGTCTTACTGGTTTTTTAATAAATCCTTTTGTATAAAAATGTATTGGCTCTTTTA TCATCAGAATAGGAAAAATTGTCATGGATTCAAGTTATTAAAAGCATAAGTTTGGAAGACAGGCTTGCCGAAATT GAGGACATGATTAAAATTGCAGTGAAGTTTGAAATGTTTTTAGCAAAATCTAATTTTTGCCATAATGTGTCCTCC AGATTTATATGAATATTTTCCCAAATGCCCAGTTTTTGCTTAATATGTATTGTGCTTTTTAGAACAAATCTGGAT GTTAATTATAATAGAAATGCGGCTAGTTCAGAGAGATTTTTAGAGCTGTGGTGGACTTCATAGATGAATTCAAGT GTTGAGGGAGGATTAAAGAAAT

# 30/2682 FIGURE 28

MSEEQFGGDGAAAAATAAVGGSAGEQEGAMVAATQGAAAAAGSGAGTGGGTASGGTEGGSAESEGAKIDASKNEE DEGHSNSSPRHSEAATAQREEWKMFIGGLSWDTTKKDLKDYFSKFGEVVDCTLKLDPITGRSRGFGFVLFKESES VDKVMDQKEHKLNGKVIDPKRAKAMKTKEPVKKIFVGGLSPDTPEEKIREYFGGFGEVESIELPMDNKTNKRRGF CFITFKEEEPVKKIMEKKYHNVGLSKCEIKVAMSKEQYQQQQQWGSRGGFAGRARGRGGGPSQNWNQGYSNYWNQ GYGNYGYNSQGYGGYGGYDYTGYNNYYGYGDYSNQQSGYGKVSRRGGHQNSYKPY

 ${\tt GTACTATCCTCCTTACTTTTGGGTCGGGCCCTCCGGGAAG} {\color{red} \underline{\textbf{ATC}}} {\tt GCGGCCGTGCAGGCGGGCGAGGTGAAAGTGGA}$ TGGTGTGGGTCCTGAGGAAGAGGCGTGGACCCAAATCAATACTACAAAATCCGCAGTCAAGCAATTCATCAGCT TAGTCACCTGCAGCCTGGGGATCACCTGACTGACATCACCTTAAAGGTGGCAGGTAGGATCCATGCCAAAAGAGC TTCTGGGGGAAAGCTCATCTTCTATGATCTTCGAGGAGAGGGGGGTGAAGTTGCAAGTCATGGCCAATTCCAGAAA TTATAAATCAGAAGAAGAATTTATTCATATTAATAACAAACTGCGTCGGGGAGACATAATTGGAGTTCAGGGGAA TCCTGGTAAAACCAAGAAGGGTGAGCTGAGCATCATTCCGTATGAGATCACACTGCTGTCTCCCTGTTTGCATAT GTTACCTCATCTTCACTTTGGGCTCAAAGACAAGGAAACAAGGTATCGCCAGAGATACTTGGACTTGATCCTGAA TGACTTTGTGAGGCAGAAATTTATCATCCGCTCTAAGATCATCACATATATAAGAAGTTTCTTAGATGAGCTGGG ATTCCTAGAGATTGAAACTCCCATGATGAACATCATCCCAGGGGGAGCCGTGGCCAAGCCTTTCATCACTTATCA CTGTGAGTTCTACATGGCCTATGCAGACTATCACGATCTCATGGAAATCACGGAGAAGATGGTTTCAGGGATGGT GAAGCATATTACAGGCAGTTACAAGGTCACCTACCACCCAGATGGCCCAGAGGGCCAAGCCTACGATGTTGACTT CACCCCACCCTTCCGGCGAATCAACATGGTAGAAGGCCTTGAGAAAGCCCTGGGGGATGAAGCTGCCAGAAACGAA CCTCTTTGAAACTGAAGAAACTCGCAAAATTCTTGATGATATCTGTGTGGCAAAAGCTGTTGAATGCCCTCCACC TCGGACCACAGCCAGGCTCCTTGACAAGCTTGTTGGGGAGTTCCTGGAAGTGACTTGCATCAATCCTACATTCAT GCTGTTTGTCATGAAGAAAGAGATATGCAATGCGTATACTGAGCTGAATGATCCCATGCGGCAGCGGCAGCTTTT TGAAGAACAGGCCAAGGCCAAGGCTGCAGGTGATGATGAGGCCATGTTCATAGATGAAAACTTCTGTACTGCCCT GGAATATGGGCTGCCCCCACAGCTGGCTGGGGCATGGGCATTGATCGAGTCGCCATGTTTCTCACGGACTCCAA CAACATCAAGGAAGTACTTCTGTTTCCTGCCATGAAACCCGAAGACAAGAAGGAGAATGTAGCAACCACTGATAC ACTGGAAAGCACAACAGTTGGCACTTCTGTCTAGAAAATAATAATTGCAAGTTGTATAACTCAGGCGTCTTTGCA TTTCTGCGAAAGATCAAGGTCTGCAAGGGAATTCTTGTGTGCTGCTTTCCATTTGACACCGCAGTTCTGTTCAGC CATCAGAAGAGAGACAAGGAATTAAAAATTTCTTTTTAATCCTGTTA

# 32/2682 FIGURE 30

MAAVQAAEVKVDGSEPKLSKNELKRRLKAEKKVAEKEAKQKELSEKQLSQATAAATNHTTDNGVGPEEESVDPNQ
YYKIRSQAIHQLKVNGEDPYPHKFHVDISLTDFIQKYSHLQPGDHLTDITLKVAGRIHAKRASGGKLIFYDLRGE
GVKLQVMANSRNYKSEEEFIHINNKLRRGDIIGVQGNPGKTKKGELSIIPYEITLLSPCLHMLPHLHFGLKDKET
RYRQRYLDLILNDFVRQKFIIRSKIITYIRSFLDELGFLEIETPMMNIIPGGAVAKPFITYHNELDMNLYMRIAP
ELYHKMLVVGGIDRVYEIGRQFRNEGIDLTHNPEFTTCEFYMAYADYHDLMEITEKMVSGMVKHITGSYKVTYHP
DGPEGQAYDVDFTPPFRRINMVEELEKALGMKLPETNLFETEETRKILDDICVAKAVECPPPRTTARLLDKLVGE
FLEVTCINPTFICDHPQIMSPLAKWHRSKEGLTERFELFVMKKEICNAYTELNDPMRQRQLFEEQAKAKAAGDDE
AMFIDENFCTALEYGLPPTAGWGMGIDRVAMFLTDSNNIKEVLLFPAMKPEDKKENVATTDTLESTTVGTSV

GGGGAGAGAGGCCCGGAGGGGCTCTGCGTTCTGTAGTGGCGCTGCTTGGGCCCGTGGCGGATTGTAAGCTGCTG GTTTTGCGGCTGGGAAGAGCGGCGAGAGGGTTCGGCATTTTTCGTCGGGATCCCCGCAAGG<u>ATG</u>AGTGCTGCCAG AGAGTCTCACCCGCATGGGGTGAAGCGTTCAGCCTCCCCAGACGACGATCTGGGATCTAGCAATTGGGAGGCAGC TCTTGTTATAGGAGATCACAAATCAACATCTCACTTCCGAACCGGGGAAGAAGACAAGAAAATTAATGAAGAACT GGAGTCTCAATATCAGCAAAGTATGGACAGTAAATTATCAGGAAGATATCGGCGACATTGTGGACTTGGCTTCAG TGAGGTAGAAGACCATGATGGAGAAGGTGATGTGGCTGGAGATGATGATGATGATGATGATGATCACCTGATCC TGAAAGTCCAGATGATTCTGAAAGCGATTCAGAGTCAGAGAAGAAGAATCTGCTGAAGAACTCCAAGCTGCTGA CAGTGGTTCATAACTCCCAAACGCTTAGTCTTTGTATTAAAAGTAAGCCTTATTGTTACAATGCACAGTGGAGGA CTGCTTATAGAGCACAGACCTTTGTATTATAATTTTTAAAAAAGGCCCTTTTAAATAATTACAAAGAGTGTTTGCT TTCAAATGCCATGGGTTACACTTTTATGGGCATGACTATAACCATTTTTGTAAAGAGTAAGAGTTGTATAAAATA AGAAATAAATACAGTACTCAACTTCCTTTCATATTAGCATCATCAACCCTCTAATTCACCTTATGGGGGAAATGC TTCTTTTTGTTTGTGATAGCTATTTTATCATTTCCTTCATATTTTTCTCTTATAAAAATGTATTTGATACTGTGA TATGTTCACGAAAAGTATTCTTTAATTATTCTTTGTTATAGTAGAGCTGTTCATTATGGATATTTCTGCTGCCAG TCACAATCTAAATTAATTTTGGCAAAAGATTGGGTACTTAGTTGCCTGTTACTGAGTTAGCTCTACTCTTTTGGA CCAAAGCAACATGAGAGCAAGTACTTTTCACACTTGTTAAGATGGAGTTATAACTGTCATACATTTGGAATATTA TGATCCCAAGTAGTCTTTTTATAATTTGGATTGTATCGTATGTTAGATTTTTGATAAAATTTGGCCAATTTTTAC AAAA

# 34/2682 FIGURE 32

MSAARESHPHGVKRSASPDDDLGSSNWEAADLGNEERKQKFLRLMGAGKKEHTGRLVIGDHKSTSHFRTGEEDKK INEELESQYQQSMDSKLSGRYRRHCGLGFSEVEDHDGEGDVAGDDDDDDDDDDPESPDDSESDSESEKEESAEE LQAAEHPDEVEDPKNKKDAKSNYKMMFVKSSGS

#### 35/2682 FIGURE 33

# 36/2682 FIGURE 34

 ${\tt MAYHGLTVPLIVMSVFWGFVGFLVPWFIPKGPNRGVIITMLVTCSVCCYLFWLIAILAQLNPLFGPQLKNETIWYLKYHWP}$ 

AGGAGCCAGGAAGAGAGCTGTGACCAGCAGCGTCCCTTATTCGCTTGGCCTTGGTTCCTGTTTGCACTGGCTACA GCAGGGCACTGGCCCCTACTGTCACCGCCACCTACACAAAGACCCTATCTCTGAGCGCTGCAGCCTACTGTTCAG CCCCAGGTTTGAGGATGCCCTGGACGCTTCGAAGCTACTGGATGAGGAGCTGTATTCAAGACAGCTGTATG TGCTGGGCTCACCTGCCATGCAGAGGATTCAGGGAGCCAGGGTCCTGGTGTCAGGCCTGCAGGGCCTGGGGGCCCG AGGTGGCCAAGAACTTGGTTCTGATGGGTGTGGGCAGCCTCACTCTGCATGATCCCCACCCCACCTGCTGGTCCG ACCTGGCTGCCCAGTTTCTCCTCTCAGAGCAGGACTTGGAAAGGAGCCAGAGCCGAGGCCTCTCAAGAGCTCTTGG CTCAGCTCAACAGAGCTGTCCAGGTCGTCGTGCACACGGGTGACATCACTGAGGACCTGCTGTTGGACTTCCAGG TGGTGGTGCTGACTGCTGCAAAGCTGGAGGAGCAGCTGAAGGTGGGCACCTTGTGTCATAAGCATGGAGTTTGCT TTCTGGCGGCTGACACCCGGGGCCTCGTGGGGCAGTTGTTCTGTGACTTTGGTGAGGACTTCACTGTGCAGGACC CCACAGAGGCAGAACCCCTGACAGCTGCCATCCAGCACATCTCCCAGGGCTCCCCTGGCATTCTCACTCTGAGGA AAGGGGCCAATACCCACTACTTCCGTGATGGAGACTTGGTGACTTTCTCGGGAATTGAGGGAATGGTTGAGCTCA ACGACTGTGATCCCCGGTCTATCCACGTGCGGGAGGATGGGTCCCTGGAGATTGGAGACACAACAACTTTCTCTC GGTACTTGCGTGGTGGGGCTATCACTGAAGTCAAGAGACCCAAGACTGTGAGACATAAGTCCCTGGACACAGCCC CACTGCACAAGTTCCAGCACCTCCATGGCCGGCCACCCCAGCCCTGGGATCCTGTTGATGCAGAGACTGTGGTGG GCCTGGCCCGGGACCTGGAACCACTGAAGCGGACAGAGGAAGAGCCACTGGAAGAGCCACTGGATGAGGCCCTAG TGCGGACAGTCGCCCTAAGCAGTGCAAGGTGTCTTGAGCCTATGGTGGCATGCTGGGTCAGTAGCTGCCCAGGAA GTGCTGAAGGCAATCTCCAGAAGTTCATGCCTCTGGACCAGTGGCTTTACTTTGATGCCCTCGATTGTCTTCCGG AAGATGGGGAGCTCCTTCCCAGTCCTGAGGACTGTGCCCTGAGAGGCAGCCGCTATGATGGGCAAATTGCAGTGT TTGGGGCTGGTTTTCAGGAGAAACTGAGACGCCAGCACTACCTCCTGGTGGGCGCTGGTGCCATTGGTTGTGAGC TGCTCAAAGTCTTTGCCCTAGTGGGACTGGGGGCCGGGAACAGCGGGGGCTTGACTGTTGTTGACATGGACCACA TAGAGCGCTCCAATCTCAGCCGTCAGTTCCTCTTCAGGTCCCAGGACGTTGGTAGACCCAAGGCAGAGGTGGCTG CAGCAGCTGCCCGGGGCCTGAACCCAGACTTACAGGTGATCCCGCTCACCTACCCACTGGATCCCACCACAGAGC ACATCTATGGGGATAACTTTTTCTCCCGTGTGGATGGTGTGGCTGCCCTGGACAGTTTCCAGGCCCGGCGCT CAGTATTCATGCCACATGTGACTGAGGCCTACAGAGCCCCTGCCTCAGCTGCAGCTTCTGAGGATGCCCCCTACC CTGTCTGTACCGTGCGGTACTTCCCTAGCACAGCCGAGCACCCCTGCAGTGGGCCCGGCATGAGTTTGAAGAAC TCTTCCGACTGTCTGCAGAGACCATCAACCACCACCAACAGGCACACCTCCCTGGCAGACATGGATGAGCCAC AGACACTCACCTTACTGAAGCCAGTGCTTGGGGTCCTGAGAGTGCGTCCACAGAACTGGCAAGACTGTGTGGCGT GGGCTCTTGGCCACTGGAAACTCTGCTTTCATTATGGCATCAAACAGCTGCTGAGGCACTTCCCACCTAATAAAG ACACACCCCCCTCTACGTACTGGCAGCTGCCAACCTGTATGCCCAGATGCATGGGCTGCCTGGCTCACAGGACT GGACTGCACTCAGGGAGCTGCTGAAGCTGCTGCCACAGCCTGACCCCCAACAGATGGCCCCCATCTTTGCTAGTA ATCTAGAGCTGGCTTCGGCTTCTGCTGAGTTTGGCCCTGAGCAGCAGAAGGAACTGAACAAAGCCCTGGAAGTCT GGAGTGTGGGCCCTCCCCTGAAGCCTCTGATGTTTGAGAAGGATGATGACAGCAACTTCCATGTGGACTTTGTGG TAGCGGCAGCTAGCCTGAGATGTCAGAACTACGGGATTCCACCGGTCAACCGTGCCCAGAGCAAGCGAATTGTGG GCCAGATTATCCCAGCCATTGCCACCACTACAGCAGCTGTGGCAGGCCTGTTGGGCCTGGAGCTGTATAAGGTGG TGCCTTTTGCCCCAGCCATCCAGACGTTCCATCACCTGAAGTGGACCTCTTGGGACCGTCTGAAGGTACCAGCTG GGCAGCCTGAGAGGACCCTGGAGTCGCTGCTGGCTCATCTTCAGGAGCACGGGTTGAGGGTGAGGATCCTGC TGCACGGCTCAGCCCTGCTCTATGCGGCCGGATGGTCACCTGAAAAGCAGGCCCAGCACCTGCCCCTCAGGGTGA CAGAACTGGTTCAGCAGCTGACAGGCCAGGCACCTGCTCCTGGGCAGCGGGTGTTGGTGCTAGAGCTGAGCTGTG TCAATGGAGCCCCGGATCCCAAGCCCTGCATTGTAAGCCCACAGTAGGCACTCAATAATTGCTTGTTAAAGGAAG

# 38/2682 FIGURE 36

MDALDASKLLDEELYSRQLYVLGSPAMQRIQGARVLVSGLQGLGAEVAKNLVLMGVGSLTLHDPHPTCWSDLAAQ
FLLSEQDLERSRAEASQELLAQLNRAVQVVVHTGDITEDLLLDFQVVVLTAAKLEEQLKVGTLCHKHGVCFLAAD
TRGLVGQLFCDFGEDFTVQDPTEAEPLTAAIQHISQGSPGILTLRKGANTHYFRDGDLVTFSGIEGMVELNDCDP
RSIHVREDGSLEIGDTTTFSRYLRGGAITEVKRPKTVRHKSLDTALLQPHVVAQSSQEVHHAHCLHQAFCALHKF
QHLHGRPPQPWDPVDAETVVGLARDLEPLKRTEEEPLEEPLDEALVRTVALSSARCLEPMVACWVSSCPGSAEGN
LQKFMPLDQWLYFDALDCLPEDGELLPSPEDCALRGSRYDGQIAVFGAGFQEKLRRQHYLLVGAGAIGCELLKVF
ALVGLGAGNSGGLTVVDMDHIERSNLSRQFLFRSQDVGRPKAEVAAAAARGLNPDLQVIPLTYPLDPTTEHIYGD
NFFSRVDGVAAALDSFQARRYVAARCTHYLKPLLEAGTSGTWGSATVFMPHVTEAYRAPASAAASEDAPYPVCTV
RYFPSTAEHTLQWARHEFEELFRLSAETINHHQQAHTSLADMDEPQTLTLLKPVLGVLRVRPQNWQDCVAWALGH
WKLCFHYGIKQLLRHFPPNKVLEDGTPFWSGPKQCPQPLEFDTNQDTHLLYVLAAANLYAQMHGLPGSQDWTALR
ELLKLLPQPDPQQMAPIFASNLELASASAEFGPEQQKELNKALEVWSVGPPLKPLMFEKDDDSNFHVDFVVAAAS
LRCQNYGIPPVNRAQSKRIVGQIIPAIATTTAAVAGLLGLELYKVVSGPRPRSAFRHSYLHLAENYLIRYMPFAP
AIQTFHHLKWTSWDRLKVPAGQPERTLESLLAHLQEQHGLRVRILLHGSALLYAAGWSPEKQAQHLPLRVTELVQ
QLTGQAPAPGQRVLVLELSCEGDDEDTAFPPLHYEL

# 39/2682 FIGURE 37

GACAGCCACGAAGATCCTACCAAAATGAAGCGCTTCCTCTTCCTCCTACTCACCATCAGCCTCCTGGTTATGGTA'
CAGATACAAACTGGACTCTCAGGACAAAACGACACCAGCCAAACCAGCAGCCCCTCAGCATCCAGCAGCATGAGC
GGAGGCATTTTCCTTTTCTTCGTGGCCAATGCCATAATCCACCTCTTCTGCTTCAGTTGAGGTGACACGTCTCAG
CCTTAGCCCTGTGCCCCCTGAAACAGCTGCCACCATCACTCGCAAGAGAATCCCCTCCATCTTTGGGAGGGGTTG
ATGCCAGACATCACCAGGTTGTAGAAGTTGACAGGCAGTGCCATGGGGGGCAACAGCCAAAATAGGGGGGTAATGA
TGTAGGGGCCAAGCAGTGCCCAGCTGGGGGAGAATAAAGTTACCCTTGTACTGCA

# 40/2682 FIGURE 38

 ${\tt MKRFLFLLLTISLLVMVQIQTGLSGQNDTSQTSSPSASSSMSGGIFLFFVANAIIHLFCFS}$ 

# FIGURE 39

TATATTGGCAGTTATTGAGGGTAAAGCAATATTTTGTAACAGAATGTATAAATATTTTTGATAAAAACAGTCTATA TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACACT GCCAGTGAAAAAGCTACGTCTTTACTGCATAAATTAGAGGAAGCAATTTCGGAACAACGGAACCTTCAAACTATA AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAAACTGAAGAAGCTTTTTAGATGAGGA ATTTCCTCACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC ACCTCTGCTGGATGCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCCTGGAATCAACACCTTTCTCAGGTGT AGCCAACCAAATCCACACTCTGTGTGAAAGGCCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG TGACCCAAGTATGGAAGAGAATGGTGTTGAACGCGTGTGTCCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT **AAATCTGGAAGCCAAAGAGAACCAGAAACAATAGAAGAACATAAAAAAAGAACATGCTTCAGGAGACTCTGTGGT** TTCCCCTCTTCCTGTAACCACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAAGAAGCTGGAGAAGAGTATAAAGTTTCT AGCAGTTGAAGTGATGATTCAGCACGTAGAAAACTTGAAGAGGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAAAA ACGTTCAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTCAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCCTGGGCAGATGCTGAAGAAGA AAAATGTGAACTAAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCCTGGGCAAC TTTGATGAGCTTCCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCCACACAGCAAGAGGACTCATG GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACCACTGTGACAGCAGGA CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCCTCTTTTTTGCCTTTATCTCCCC **AACTAAAATACAATGGG** 

# 42/2682 FIGURE 40

MESTPFSGVANQIHTLCERPTYGEVKDGALDVKRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPES
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESLTPLCEDDNQAQEIIKKLEKSIKFLSQCAARVASRAEMLGA
INQESRVSKAVEVMIQHVENLKRMYAKEHAELEELKQVLLQNERSFNPLEDDDDCQIKKRSASLNSKPSSLRRVT
IASLPRNIGNAGMVAGMENNDRFSRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGQLFQKSVDA
APTQQEDSWTSLEHILWPFTRLRHNGPPPV

GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA  ${\tt GACATTTTTGGCAGAGCATAG} \underline{{\tt ATG}} \underline{{\tt AAAATGGCAAGTTCCCTGGCTTTCCTTCTGCTCAACTTTCATGTCTCCCTC}$ TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG AGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGGAAGACAGGCAGAGTGCACCATAT CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTCACAGCC TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC ACTGGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA AGCGCCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG TACATGGCTCGTGGAGAGAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTCTGAGGACCAGAGGAGTGTGCAGCGTGCTGAAGAGCCG CGGGATCTGCCAGACACCCTGAGAGATTTGAATGCCGTTACTGTGTCCTTGGCTGTGAAAACTTCACATCAGGG AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG GCTCTCACTGAGCCCAGAACCAACCTGAAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCCTGGACTATGAG ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCCGCACGCCTCTTTCTCTGAG CCTCTATATCCTGTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAAGAAGTA GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCCACCCTGGAGCTGAGGTCTCCCCTTCTGCA CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT TTTAAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCCTGTCGGG TAGTCATATTTTGCAAGTATGGAAGCTGAGGCAGGCAACATGAAGTAACTTACATAATTCATACAGTAATTTGT GCAGTTGGGAGATGTTCAGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTCCCACAGG AAGAGCCCACATGTAGCCCTGAGGTTTCCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGA GTTGACATCCCTATTGACTCTTTCCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT **AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA** ATTGCTCACCACTGTATCCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT GAAAAAAAAAAA

# 44/2682 FIGURE 42

MKMASSLAFLLLNFHVSLFLVQLLTPCSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDFYEKALVELKVAALGSDL HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS LLGLEKTASISIADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRDLPDNP ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

# 45/2682 FIGURE 43A

CCGGGCTGCGCGGCGAGGCTGAGCCGGGCCCGGGCGCCGGGGGCCGGGGGGGCGCCTGGCGCGGGCAGGAAGCGCCTC GCCGCCGCCAGCCCCCCCCGCTTCCAGACGCCGCCGCGGTGCCCGGTGCCGCTGCTGTTGCTGCTCCTGGGG GCGGCGCGGCCCCTGGAGATCCAGCGTCGGTTCCCCTCGCCCACGCCCACCACACATTCGCCCTGGAC GGCGCGGGGGGACCGTGTACCTGGCGGCCGTCAACCGCCTCTATCAGCTGTCGGGCGCCAACCTGAGCCTGGAG GCCGAGCCGCCGTGGCCCGGTGCCCGACAGCCCGCTGTGTCACGCTCCGCAGCTGCCGCAGCCTCGTGCGAG CACCCGCGGCGCCTCACGGACAACTACAACAAGATCCTGCAGCTGGACCCCGGCCAGGGCCTGGTAGTCGTGTGC GGGTCCATCTACCAGGGCTTCTGCCAGCTGCGGCGCCGGGGTAACATCTCGGCCGTGGCCGTGCGCTTCCCGCCC GCCGCGCCGCCGAGCCCGTCACGGTGTTCCCCAGCATGCTGAACGTGGCGGCCAACCACCCGAACGCGTCC ACCGTGGGGCTAGTTCTGCCTCCGCCGCGGGGCGCGGGGGGCAGCCGCCTGCTCGTGGGCGCCACGTACACCGGT TACGGCAGCTCCTTCTTCCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACACGCCCGAGATCGCCATC  $\tt CGCTCCCTGGACACGCGGGGGACCTGGCCAAGCTCTTCACCTTCGACCTCAACCCCTCCGACGACAACATCCTC$ AAGATCAAGCAGGGCGCCAAGGAGCAGCACAAGCTGGGCTTCGTGAGCGCCTTCCTGCACCCGTCCGACCCGCCG AGCCTGCTGGCGCGCATCTGCCCTGCCCCACGGCGCCGGCGACGCCAAGAAGCTCACCGAGTCCTACATCCAG TTGGGCTTGCAGTGCGCGGGCGGGGCGGGCGGCGACCTCTACAGCCGCCTGGTGTCGGTCTTCCCAGCCCGG GAGCGGCTCTTTGCTGTCTTCGAGCGGCCCCAGGGGTCCCCCGCGGCCCGCTGCTCCGGCCGCACTCTGCGCC TTCCGCTTCGCCGACGTGCGAGCCGCCATCCGAGCTGCGCGCCCCGCCTGCTTCGTGGAACCGGCGCCCCGACGTG GTGGCGGTGCTCGACAGCGTGCTGCAGGGCACGGGACCGGCCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA CAGCAGCTGGACTGTGGAGCTGCTCACCTGCAGCACCCGCTGTCCATCCTGCAGCCCCTGAAGGCCACGCCCGTG TTCCGCGCCCCGGGCCTCACCTCCGTGGCCGTGGCCACCACCACCACCACCACCGGTCTTCCTGGGCACGGTC AACGGGAGGCTTCTCAAGATCAACCTGAACGAGAGCATGCAGGTGGTGAGCAGGCGGGTGGTGACTGTGGCCTAT GGGGAGCCCGTGCACCATGTCATGCAGTTTGACCCAGCAGACTCCGTTTACCTTTACCTGATGACGTCCCACCAG ATGGCCAGGGTGAAGGTCGCCGCCTGCAACGTGCACCTCCACCTGTGGGGACTGCGTGGGTGCGGCGGACGCCTAC ACCAGTGCCAGCGAGGGCCCCAGCCGCTGTCCTGCCATGACCGTCCTGCCTTCCGAGATCGATGTGCGCCAGGAG TACCCAGGCATGATCCTGCAGATCTCGGGCAGCCTGCCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCTTTGGTCACCAGATTGCCTACTGCAACCTCCTGCCG AGGGACCAGTTTCCGCCCTTCCCCCCAACCAGGACCACGTGACTGTTGAGATGTCTGTGAGGGTCAATGGGCGG AACATCGTCAAGGCCAATTTCACCATCTACGACTGCAGCCGCACTGCACAAGTGTACCCCCACACAGCCTGTACC GAGGCCTCACCAAACCCCACGAGCCCTCAGGACTGCCCCCGGACCCTGCTCTCACCCCTGGCACCCGTGCCTACG GGTGGCTCCCAGAACATCCTGGTGCCTCTGGCCAACACTGCCTTTTTCCAGGGTGCAGCCCTGGAGTGTAGTTTT GGGCTGGAGGAGATCTTCGAGGCTGTGTGGGTGAATGAGTCTGTTGTACGCTGTGACCAGGTGGTGCTGCACACG CCCATGACAGTCATGGTCTATAACTGTGCCATGGGCAGCCCCGACTGTTCCCAGTGCCTGGGCCGCGAAGACCTG CTGGGCCGGCGCTCAGTGACGTGGCCCACGGCGTGTGGATTGGTGGTGTGGCCTGTGAGCCACTGCCTGACAGA TACACGGTGTCGGAGGAGATCGTGTGTGTCACAGGGCCAGCCCCAGGACCACTCTCAGGTGTGGTGACCGTGAAC GCCTCTAAGGAGGGCAAGTCCCGGGACCGCTTCTCCTACGTGCTGCCCCTGGTCCACTCCCTGGAGCCTACCATG GGCCCCAAGGCCGGGGGCACCAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCCTG GTGAACGACACAGACCCCTGCACGGAGCTGATGCGCACAGATACCAGCATCGCCTGCACCATGCCTGAGGGGGCC CTGCCGGCTCCGGTGCCTGTGTGTGTGCGCTTCGAGCGTCGGGGGCTGCGTGCACGGCAACCTCACCTTCTGGTAC ATGCAGAACCCGGTCATCACGGCCATCAGTCCCCGCCGCAGCCCTGTCAGTGGCGGCAGGACCATCACAGTGGCT GGTGAGCGTTTCCACATGGTGCAGAATGTGTCCATGGCCGTCCACCACATTGGCCGGGAGCCCACGCTCTGCAAG GTTCTCAACTCCACCCTCATCACCTGCCCGTCCCCCGGGGCCCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC

# 46/2682 FIGURE 43B

ATCAATGGGCGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCCGAGGAGGCACAGCGGGGC AGCAGGTTCCGCCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAAAGTGGATCAAGCACCAC CCCGGGGAGCCTCTCACCCTCGTTATCCACAAGGAGCAGGACAGCCTGGGGCTCCAGAGTCACGAGTACCGGGTC **AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTCTGACAGAATCATCCACTGCTCGGTCAACGAGTCCCTG** GGCGCGGCCGTGGGGCAGCTGCCCATCACAATCCAGGTAGGGAACTTCAACCAGACCATCGCCACACTGCAGCTG GGGGGTAGCGAGACGGCCATCATCGTGTCCATCGTCATCTGCAGCGTCCTGCTGCTGCTCCTCCGTGGTGGCCCTG TTCGTCTTCTGTACCAAGAGCCGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGGAGATGGAA AACCGCAGCCAGGGCATCCCCTTCCTGGAGTATAAGCACTTCGTGACCCGCACCTTCTTCCCCAAGTGTTCCTCC CTTTATGAAGAGCGTTACGTGCCCTCCCAGACCCTCAACTCCCAGGCAGCTCCCAGGCACAGGAAACCCAC CCACTGCTGGGAGAGTGGAAGATTCCTGAGAGCTGCCGGCCCAACATGGAAGAGGGAATTAGCTTGTTCTCCTCA CTACTCAACAACAAGCACTTCCTCATCGTCTTTGTCCACGGGCTGGAGCAGCAGAAGGACTTTGCGGTGCGCGAC AGGTGCAGCCTGGCCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG  $\tt CTGCTGGTGGACCTCATTGACGCCTCGGCCGCCAAGAACCCCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG$ GAGAAGATGCTCACCAACTGGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC CTGCTGCTGTGTGCCATCAAGCAGCAAATCAACAAGGGCTCCATCGACGCCATCACAGGCCAGGCCCGCTACACA CTCAATGAGGAGTGGCTGCTGCGGGAGAACATCGAGGCCAAGCCCCGGAACCTGAACGTGTCCTTCCAGGGCTGT GGCATGGACTCGCTGAGCGTGCGGGCCATGGACACCGACACGCTGACACAGGTCAAGGAGAAGATCCTGGAGGCC TTCTGCAAGAATGTGCCCTACTCCCAGTGGCCGCGTGCAGAGGACGTCGACCTTGAGTGGTTCGCCTCCAGCACA CAGAGCTACATCCTTCGGGACCTGGACGACACCTCAGTGGTGGAAGACGGCCGCAAGAAGCTTAACACGCTGGCC CATTACAAGATCCCTGAAGGTGCCTCCCTGGCCATGAGTCTCATAGACAAGAAGGACAACACTGGGCCGAGTG AAAGACTTGGACACAGAGAAGTATTTCCATTTGGTGCTGCCTACGGACGAGCTGGCGGAGCCCAAGAAGTCTCAC CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCCTGCTCTCCACCAAGGGCACGTTGCAG AAGTTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCCACTGGCTGTCAAGTACTTT TTCGACTTCCTGGAGGAGCAGGCTGAGAAGAGGGGAATCTCCGACCCCGACACCCTACACATCTGGAAGACCAAC ATCGACGCCTGCCTTTCAGTCATCGCGCAGGCCTTCATCGACGCCTGCTCCATCTCTGACCTGCAGCTGGGCAAG GATTCGCCAACCAACAGCTCCTCTACGCCAAGGAGATTCCTGAGTACCGGAAGATCGTGCAGCGCTACTACAAG CAGATCCAGGACATGACGCCGCTCAGCGAGCAAGAGATGAATGCCCATCTGGCCGAGGAGTCGAGGAAATACCAG AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTTATAAGTACGCCAAGAGGTATCGGCCGCAGATCATGGCC GCGCTGGAGGCCAACCCCACGGCCCGGAGGACACAACTGCAGCACAAGTTTGAGCAGGTGGTGGCTTTGATGGAG GACAACATCTACGAGTGCTACAGTGAGGCCTGAGACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAAATGGA CGCCCACTGGGCCTCAACTTGATCTTCTACCCCGTGCCTGTGACTCAGACTGGGAAATACTGAGCAGAGACGGCT GGGGCGGGGCAGGAGGAGGGGCTGCTCTCTGAGACAGGGGCGCCCCCGCCTTGACCCCTGGGCACCTCCATCCC CTCCCACCTGTCCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCCATCTGCCCAGCACG GCCTGCACTGTGCCCACCCACTTGCTCCACAACGTCCAGTTGGTCCTGCCAAGAGCCCCGTGCATCCAGGCG GCCAAGCACAAACTGGGGGAGAGGGGGCCGCCAGCCCGGAGGCTGCAGCCCAGAAACTCTACCTCATCCACACTG GTGCAGGGAGCCCTCCTTGAACTGACCTTTGATTGGTTTCTGCTTCAACTACCAAAATGTTATCTCCACTTCCCC CTCACCCGTAGAGGATCCTGGCCACAGACAGTTTCAAGTAGTGTCAGATTTTTGTTGCTTGGGCGGCTGTTGGTA GGGCACAGGAGCTGGGAGCCCCGTCTCCAGGAAAAGGAGGGGTTAAGATGCACCGAGGCTGTAGCTGGGCTAC ATGC

PGCAARLSRARAPGPGAAGAGRKRLADPGPPPASRRLRAPGSRPRLAPCTRRAAQPAHARMAPRAAGGAPLSARA AAASPPPFOTPPRCPVPLLLLLLLGAARAGALEIQRRFPSPTPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE AEAAVGPVPDSPLCHAPQLPQASCEHPRRLTDNYNKILQLDPGQGLVVVCGSIYQGFCQLRRRGNISAVAVRFPP AAPPAEPVTVFPSMLNVAANHPNASTVGLVLPPAAGAGGSRLLVGATYTGYGSSFFPRNRSLEDHRFENTPEIAI RSLDTRGDLAKLFTFDLNPSDDNILKIKQGAKEQHKLGFVSAFLHPSDPPPGAQSYAYLALNSEARAGDKESQAR SLLARICLPHGAGGDAKKLTESYIQLGLQCAGGAGRGDLYSRLVSVFPARERLFAVFERPQGSPAARAAPAALCA FRFADVRAAIRAARTACFVEPAPDVVAVLDSVVQGTGPACERKLNIQLQPEQLDCGAAHLQHPLSILQPLKATPV FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNESMQVVSRRVVTVAYGEPVHHVMQFDPADSVYLYLMTSHQ MARVKVAACNVHSTCGDCVGAADAYCGWCALETRCTLQQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE YPGMILOISGSLPSLSGMEMACDYGNNIRTVARVPGPAFGHQIAYCNLLPRDQFPPFPPNQDHVTVEMSVRVNGR NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWCSQQHSCVSNQSRCEASPNPTSPQDCPRTLLSPLAPVPT GGSONILVPLANTAFFOGAALECSFGLEEIFEAVWVNESVVRCDQVVLHTTRKSQVFPLSLQLKGRPARFLDSPE PMTVMVYNCAMGSPDCSQCLGREDLGHLCMWSDGCRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN LGRRLSDVAHGVWIGGVACEPLPDRYTVSEEIVCVTGPAPGPLSGVVTVNASKEGKSRDRFSYVLPLVHSLEPTM GPKAGGTRITIHGNDLHVGSELOVLVNDTDPCTELMRTDTSIACTMPEGALPAPVPVCVRFERRGCVHGNLTFWY MONPVITAISPRRSPVSGGRTITVAGERFHMVONVSMAVHHIGREPTLCKVLNSTLITCPSPGALSNASAPVDFF INGRAYADEVAVAEELLDPEEAQRGSRFRLDYLPNPQFSTAKREKWIKHHPGEPLTLVIHKEQDSLGLQSHEYRV KIGOVSCDIOIVSDRIIHCSVNESLGAAVGQLPITIQVGNFNQTIATLQLGGSETAIIVSIVICSVLLLLSVVAL FVFCTKSRRAERYWQKTLLQMEEMESQIREEIRKGFAELQTDMTDLTKELNRSQGIPFLEYKHFVTRTFFPKCSS LYEERYVLPSOTLNSOGSSOAOETHPLLGEWKIPESCRPNMEEGISLFSSLLNNKHFLIVFVHALEQQKDFAVRD RCSLASLLTIALHGKLEYYTSIMKELLVDLIDASAAKNPKLMLRRTESVVEKMLTNWMSICMYSCLRETVGEPFF LLLCAIKQQINKGSIDAITGKARYTLNEEWLLRENIEAKPRNLNVSFQGCGMDSLSVRAMDTDTLTQVKEKILEA FCKNVPYSOWPRAEDVDLEWFASSTQSYILRDLDDTSVVEDGRKKLNTLAHYKIPEGASLAMSLIDKKDNTLGRV KDLDTEKYFHLVLPTDELAEPKKSHRQSHRKKVLPEIYLTRLLSTKGTLQKFLDDLFKAILSIREDKPPLAVKYF FDFLEEQAEKRGISDPDTLHIWKTNSLPLRFWVNILKNPQFVFDIDKTDHIDACLSVIAQAFIDACSISDLQLGK DSPTNKLLYAKE I PEYRKI VORYYKO I ODMTPLSEQEMNAHLAEESRKY QNEFNTNVAMAE I YKYAKRYRPQIMA ALEANPTARRTQLOHKFEQVVALMEDNIYECYSEA

CCCCTGCCGGCCGACAGCGCCGCCTGCCCGCCATGGGTCGACAGAAGGAGCTGGTGTCCCGCTGCGGGGA GATGCTCCACATCCGCTACCGGCTGCTCCGACAGGCGCTGGCCGAGTGCCTGGGGGACCCTCATCCTGGTGATGTT TGGCTGTGGCTCCGTGGCCCAGGTTGTGCTCAGCCGGGGCACCCACGGTGGTTTCCTCACCATCAACCTGGCCTT TGGCTTTGCTGTCACTCTGGGCATCCTCATCGCTGGCCAGGTCTCTGGGGCCCACCTGAACCCTGCCGTGACCTT TGCCATGTGCTTCCTGGCTCGTGAGCCCTGGATCAAGCTGCCCATCTACACCCTGGCACAGACGCTGGGAGCCTT CTTGGGTGCTGGAATAGTTTTTGGGCTGTATTATGATGCAATCTGGCACTTCGCCGACAACCAGCTTTTTGTTTC GGGCCCCAATGGCACAGCCGGCATCTTTGCTACCTACCCTCTGGACACTTGGATATGATCAATGGCTTCTTTGA CCAGTTCATAGGCACAGCCTCCCTTATCGTGTGTGTGCCGCCATTGTTGACCCCTACAACAACCCCGTCCCCG AGGCCTGGAGGCCTTCACCGTGGGCCTGGTGGTCCTGGTCATTGGCACCTCCATGGGCTTCAACTCCGGCTATGC CGTCAACCCTGCCCGGGACTTTGGCCCCCGCCTTTTTACAGCCCTTGCGGGCTGGGGCTCTGCAGTCTTCACGAC CGGCCAGCATTGGTGGTGGCTGCCCATCGTGTCCCCACTCCTGGGCTCCATTGCGGGTGTCTTCGTGTACCAGCT GATGATCGGCTGCCACCTGGAGCAGCCCCCACCCTCCAACGAGGAAGAGATGTGAAGCTGGCCCATGTGAAGCA AAGGGCCACTCCCAAGAAGCCCCCTTCACGATCCACCCTTTCAGGCTAAGGAGCTCCCTATCTACCCTCACCCCA CGAGACAGCCCCTTCAGGATTTCCACTGGACCTTGCCCAAATAGCACCTTAGGCCACTGCCCCTAAGCTGGGGTG GGACCAGTCGGAAGGGATTCTGGCTATTGGGGGAGCCCAGAGACAGGGGAAGGCAGCCTGTCCATCTGTGCATAA GTATGTGTATGTCTGCCTTTTTTTCTAAGTGGGGGCTTCTACAGGCTTTTGGGAAGTAGGGTGGATGTGGGTAGG GCTGGGAGGAGGGGCCCACAGCTTAGGTTTGGAGCTCTGGATGTACATAAGTAGGAGCAGTGGGACGTGTT TCTGTCATAATGCAGGCATGAAGGGTGGAGTGAAGTCAGGTCATAAGTTTCATGTTTGCTTTTGTTTTTGT TTTTAATGTATGTAGCAGATGTTACAGTCTTAGGGATCCGGGATGGGAGACCCCACTTTAGAAAGGGTCGTCACT AAAAAAAAA

# 49/2682 FIGURE 46

MGRQKELVSRCGEMLHIRYRLLRQALAECLGTLILVMFGCGSVAQVVLSRGTHGGFLTINLAFGFAVTLGILIAG QVSGAHLNPAVTFAMCFLAREPWIKLPIYTLAQTLGAFLGAGIVFGLYYDAIWHFADNQLFVSGPNGTAGIFATY PSGHLDMINGFFDQFIGTASLIVCVLAIVDPYNNPVPRGLEAFTVGLVVLVIGTSMGFNSGYAVNPARDFGPRLF TALAGWGSAVFTTGQHWWWVPIVSPLLGSIAGVFVYQLMIGCHLEQPPPSNEEENVKLAHVKHKEQI

## 50/2682 FIGURE 47

ACCAACCTCTTCGAGGCACAAGGCACAACAGGCTGCTCTGGGATTCTCTTCAGCCAATCTTCATTGCTCAAGTGT  $\tt CTGAAGCAGCC{\color{red} ATG} GCAGAAGTACCTGAGCTCGCCAGTGAAATGATGGCTTATTACAGTGGCAATGAGGATGACT$ TGTTCTTTGAAGCTGATGGCCCTAAACAGATGAAGTGCTCCTTCCAGGACCTGGACCTCTGCCCTCTGGATGGCG ACAAGCTGAGGAAGATGCTGGTTCCCTGCCCACAGACCTTCCAGGAGAATGACCTGAGCACCTTCTTTCCCTTCA TCTTTGAAGAAGAACCTATCTTCTTCGACACATGGGATAACGAGGCTTATGTGCACGATGCACCTGTACGATCAC TGAACTGCACGCTCCGGGACTCACAGCAAAAAAGCTTGGTGATGTCTGGTCCATATGAACTGAAAGCTCTCCACC TACCTGTGGCCTTGGGCCTCAAGGAAAGAATCTGTACCTGTCCTGCGTGTTGAAAGATGATAAGCCCACTCTAC AGCTGGAGAGTGTAGATCCCAAAAATTACCCAAAGAAGAAGATGGAAAAGCGATTTGTCTTCAACAAGATAGAAA TCAATAACAAGCTGGAATTTGAGTCTGCCCAGTTCCCCAACTGGTACATCAGCACCTCTCAAGCAGAAAACATGC  $\verb|CCGTCTTCCTGGGAGGGACCAAAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTTCACCATGCAATTTGTGTCTTCCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTGACATGCAATTTGTGTCTTCCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAACTGACTGACATGCAATTTGTGTGTCTTCCC\underline{TAA} \verb|AGAGGCGGCCAGGATATAAACTGACTGACATGCAATTTGTGTCTTCCCAATGCAATTTGTGTCTTCCCAATGCAATGCAATTTGTGTCTTCCCAATGCAATTTGTGTCTTCCAATGCAATTTGTGTCTTCCAATGC$ AGCTGTACCCAGAGAGTCCTGTGCTGAATGTGGACTCAATCCCTAGGGCTGGCAGAAAGGGAACAGAAAGGTTTT GGATCTCCTGTCCATCAGCCAGGACAGTCAGCTCTCTCCTTTCAGGGCCAATCCCCAGCCCTTTTGTTGAGCCAG GCCTCTCTCACCTCTCCTACTCACTTAAAGCCCGCCTGACAGAAACCACGGCCACATTTGGTTCTAAGAAACCCT TTGGTCTAATTTATTCAAAGGGGGCAAGAAGTAGCAGTGTCTGTAAAAGAGCCTAGTTTTTAATAGCTATGGAAT ATTTAAATGGGAATATTTATAAATGAGCAAATATCATACTGTTCAATGGTTCTGAAATAAACTTCTCTGAAG

# 51/2682 FIGURE 48

MAEVPELASEMMAYYSGNEDDLFFEADGPKQMKCSFQDLDLCPLDGGIQLRISDHHYSKGFRQAASVVVAMDKLR KMLVPCPQTFQENDLSTFFPFIFEEEPIFFDTWDNEAYVHDAPVRSLNCTLRDSQQKSLVMSGPYELKALHLQGQ DMEQQVVFSMSFVQGEESNDKIPVALGLKEKNLYLSCVLKDDKPTLQLESVDPKNYPKKKMEKRFVFNKIEINNK LEFESAQFPNWYISTSQAENMPVFLGGTKGGQDITDFTMQFVSS

### 52/2682 FIGURE 49A

CCCTTTTCCTCCCGTTTTGAAGAGACAATGCTACTTCAGTTTGGAGCACAAACATATGATCAGCACATGGAAAT GTGGTAATTCGGATGCATTCGTGATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTTAGAGGAGA GAGGAGGAGGAGGAGGAGGAGGGAGGGCGACGGGGGTGAGAAAGGGGAGGCCGCCTCTGAGCGGGACGCCG  $\tt GGACTCCCGCCGCTGCTAAATATATCCGTAGA{\color{red} ATG} GAGAGGGACCGGATCTCAGCCTTGAAAAGATCTTTTGAGG$ TCGAGGAGGTCGAGACACCCAACTCCACCCCACCCCGGAGGGTCCAGACTCCCCTACTCCGAGCCACTGTGGCCA GCTCCACCCAGAAATTCCAGGACCTGGGCGTGAAGAACTCAGAACCCTCGGCCCGCCATGTGGACTCCCTAAGCC AACGCTCCCCAAGGCGTCCCTGCGGAGGGTGGAGCTCTCGGGCCCCAAGGCGGCCGAGCCGGTGTCCCGGCGCA CTGAGCTGTCCATTGACATCTCGTCCAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCGTTCCGGTTCAGGCTCA AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCGGCCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC AGGAGTCAGCCCACCGGAGGATGGAGCCCCCTGCCTCCAAGGTCCCCGAGGTGCCCACTGCCCCTGCCACCGACG CAGCCCCAAGAGGGTGGAGATCCAGATGCCCAAGCCTGCTGAGGCGCCCACCGCCCCAGCCCAGCCCAGACCT TGGAGAATTCAGAGCCTGCCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCAAGCCCCAGCCCCCTGTGGCTG AGGCTACACCCCGGAGCCAGGAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGACATGGCCGACACCCCCAGAG ATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAGGCCCCGGTGGACTTCGGCTACGTGGGGATTGACT GCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGTGCAGCCCACCTCAG TGACAGTGATTGACACCAGGGTTCGGGGACCACATCAACAACGAGAACTGCTGGCAGCCCATCATGAAGTTCA TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCATCCCGGACACCCGCG TCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCTGGACATCGAGTTTATGAAACGCC TGAGCAAGGTGGTCAACATCGTCCCTGTCATCGCCAAGGCGGACACACTCACCCTGGAGGAGAGGGGTCCACTTCA AACAGCGGATCACCGCAGACCTGCTGTCCAACGGCATCGACGTGTACCCCCAGAAGGAATTTGATGAGGACTCGG AGGACCGGCTGGTGAACGAGAAGTTCCGGGAGATGATCCCATTTGCTGTGGTGGGCAGTGACCACGAGTACCAGG TCAACGGCAAGAGGATCCTTGGGAGGAAGACCAAGTGGGGTACCATCGAAGTTGAAAACACCACACACTGTGAGT TTGCCTACCTGCGGGACCTTCTCATCAGGACGCACATGCAGAACATCAAGGACATCACCAGCAGCATCCACTTCG AGGCGTACCGTGTGAAGCGCCTCAACGAGGGCAGCAGCGCCATGGCCAACGGCGTGGAGAGAAGGAGCCAGAAG TCCCACCACCCCATTTTATTTTATATGATTTTCTCCATTTGTCATCGTTCCCCACCCCTTCGACATGCTGCCAGG AAACAAGGGAAGGGCCTCCCTCCGAGTGAGTCAGTGATGAGGCCGCGCCTCCCCGAGGTTGTGGGGAGGCTGC ACTGGAGCCACAGGCAGGGTGAGAGCACCCACTGAATTGACATGACCCTCTGTCCCCAGGCCTGGCTCCCCGAG GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCGTCGTGTGGGGTTCTCAGTGCCGGAGCTTGGGGTGGGGGC GTGTCAGAGCCCAGGGGAGAATGCAGCCCACCAGGAGCACCTGGACCCCTGCCCGCCACATGGTGTGGCCATCA CTCAGCCCCTACCCTGCCCTGCTCCTAAGGGTAGAAAACTCCAGGGTCCCCTGCCACCGACTGCCCAGCCACTC CAAGCCCCTGGCAGCTGCCCCTCCTGGAGCAGAAAGTGCCTTTATCTCAGCCATCCGCAGACTGCTGGCCAGAT GGGCTGCAGGTGCTGATGCGCTGGGATCTGATTGAGGATAAAAAGGAAGAGAGATGACCCCTACCCCCTCA AAGGAAGGTTGGCGGGGCACGTGTGGGCCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCC TGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCTGGGCCCCT CCCCTCAGAGCCCATGGTAACGAACCCCTAGAAAGGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAG AGCAAGGTTTCGTGGCAGCACGGCCCGGCCCCTCACCCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTTG CAGGGCACAGATGACCAAAGTCCCTTCCTGCTTCCTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCCTGAT CCCAAGAGAGGAAGGACCCCTCACCACCCCCACTGGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCA

# 53/2682 FIGURE 49B

# 54/2682 FIGURE 50

MERDRISALKRSFEVEEVETPNSTPPRRVQTPLLRATVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRRV ELSGPKAAEPVSRRTELSIDISSKQVENAGAIGPSRFGLKRAEVLGHKTPEPAPRRTEITIVKPQESAHRRMEPP ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQTLENSEPAPVSQLQSRLEPKPQPPVAEATPRSQEATE AAPSCVGDMADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTL FKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGVRMKLTVIDTPGFGDHINNENCWQPIMKFINDQYEKYLQE EVNINRKKRIPDTRVHCCLYFIPATGHSLRPLDIEFMKRLSKVVNIVPVIAKADTLTLEERVHFKQRITADLLSN GIDVYPQKEFDEDSEDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTTHCEFAYLRDLLIRT HMQNIKDITSSIHFEAYRVKRLNEGSSAMANGVEEKEPEAPEM

GGCACGAGGGGAAGTTGCCGGCGGCCGCGCGCCTCCCGGGCGGCCTACAGCCATGTCCCGGGACCCGGGGTCG GGCGGCTGGGAGGAGGCCCCGCGCAGCTGCCGCGCTCTGCACCCTGTACCACGAGGCCGGACAGCGGCTGCGC GACGCCGCGCCGTCCCTAGTGGACGCGCTGCTGGAGCAGGTTGCGCGCTTCCGGGAGCAGCTGCGAAGGCAGGAG GGGGAGCGCCCGGGCCGCCAGTGACGTCCTGTGCCGCTCCTTGGCCAACGAGACCCATCAGCTGCGGAGGACG CTGACCGCCACCGCCCACATGTGTCAGCATCTGGCCAAGTGTCTGGATGAACGACAGCATGCACAAAGGAATGTG GGGGAGAGAGTCCTGACCAGTCGGAACACACAGATGGGCACACCTCTGTCCAGAGTGTTATTGAGAAGTTGCAG GAAGAAAATCGACTGTTAAAACAGAAGGTGACTCACGTTGAAGACCTCAATGCCAAGTGGCAGCGCTACAACGCC AGCAGGGACGAATACGTGAGGGGGCTCCATGCGCAGCTCAGGGGGCTGCAGATCCCCCACGAGCCCGAGCTGATG GCGGCCTCCAGGACGGCCCGGGATGCTGCGTTGGAGCGGGTGCAGATGCTGGAACAGCAGATTCTCGCTTACAAG GATGACTTCATGTCAGAAAGGGCCGATCGGGAACGGGCTCAAAGTAGGATTCAAGAACTGGAGGAAAAGGTCGCC ACTGCCAAGTATTTGGCCGCCGACGCATTAGAGCTTATGGTGCCTGGTGGCTGGAGGCCTGGGACTGGGTCCCAG CAGCCAGAACCCCTGCAGAGGGCGGCCATCCTGGCGCGGTCCAGAGAGGCCAGGGGGACCTTCAGTGCCCTCAC TGCCTGCAGTGCTTCAGTGACGAGCAAGGGGAAGAGCTCCTCAGGCATGTGGCCGAGTGCTGCCAG<u>TGA</u>CCGAGA GGGTTGAGCTCTACTGAGAGCCCAAGGCCCCTAGAATAGTTGCGGGGCACTCTGATCGTTCACTTTGGTCCCTTTG GCTATGGAACAGGCTGGGTCACAGGGAACTGCCAGTGAGGCTGGAGGCTGGAGGTGGAGATGGGGTCAGGAACAT CTGGCAGAGGGAGGTCCCAGTCTGTGTCTCCATCAGGCTTAAGCCAGAGCTATCTGGTGCTGGTGTGCCAGCCCC TCCCCCAGCCTGCCTAGAAAGGGGTGGCTGCCTGAGGGAGTCACTTGTATGGTCCCCAGGGTGGGAGCCCCATCC TGTTCTATGGAATAAAGCGTCGCCTCTCTGCCTCGAACCAGTCAAATGGAGTATTGCGGCTGCACGTCACACTAG GGTGGCCACCCCGCCATTGCGAGCCACATGTCTGCACTGAGAAACTGCATTTCAGTAGCATTTGTCATCCAGCC AAAAAAAAA

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CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCCTGCCCAGCTCTTGGATCAGTCT GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCCAGCCTGCCCGAGGAGGCCCCGGCTCAGAGC CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC AGAGGTGCTTGTGTCCAGTGTCCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGTGCTGGCCTC CCTCCTGGTCCTGCTGCTGCTGCTGCCCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC CGAGGACCGCAAGTTCGTGAACTTCATCCTAAAGCCGCAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCCGACGCCTCAT CGTGGTGCTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCGGCGCACCCGGCGCTCCGCCT GAAAGAAGTGCAGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGACACCCCAGACGCAGCTGCA GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC GGACCCTGAGGGCGACCTGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCAGTGGGGT CTCGCTGGGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAAACTACAGTGCCCGCACAGA CTTCTACTGCCTGGTGTCCAAGGATGATATGTAGCTCCCACCCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC AGGGCAGCGGCGTCGCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC 

# 58/2682 FIGURE 54

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVSGPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS EVLVSSVLGVNVTSTEVYGAFTCSIQNISFSSFTLQRAGPTSHVAAVLASLLVLLALLLAALLYVKCRLNVLLWY QDAYGEVEINDGKLYDAYVSYSDCPEDRKFVNFILKPQLERRRGYKLFLDDRDLLPRAEPSADLLVNLSRCRRLI VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIFITFEGQRRDPAHPALRLLRQHRHLVTLLLWRPGSVTPSSDFW KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLILRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

# 59/2682 FIGURE 55A

GGTTGGCTCTTGCACTTCCTGGCTCTCTGGACTTGGTTATGTGATTGAGCCTCCATGGCCTCCGTGTCTTTGTCT GTCAATGGGTTTGATTAAAGCGTTGACCTCATAGGTTCTTAGGAGGATTAATGAGAACATTTTATGTAAAGCTGC TTACATGGAGCCTTGGTATGTGCCGGAAAGCTTTAGCCCTTTATTAAAAGTGACAGCAGACCCAGCACGGTGGCT CATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCGGCAGATCACTTGGGGTCAGGAGTTCGAGACCAGCTAC TCGGGAGGCAGAGGCAGGAGAATCGCTTGAACCTGGGGTGCAGAGGTTGCAGTAAGCTGAGCTCGCACCACTGCA GACCCCCATCCCCCTTGCTGGGGTTTCCTAGGAAAGAAGGCTGGTGAGAGCTGTTGCTGGTGGTGGGCCCTGAGC GGAGGGG<u>ATG</u>CTGTTCAGCCTCAAGTACCTGGGCATGACGCTAGTGGAGCAGCCCAAGGGTGAGGAGCTGTCGGC CGCCGCCATCAAGAGGATCGTGGCTACAGCTAAGGCCAGTGGGAAGAAGCTGCAGAAGGTGACTCTGAAGGTGTC GCCACGGGGAATTATCCTGACAGACAACCTCACCAACCAGCTCATTGAGAACGTGTCCATATACAGGATCTCCTA CCACGCCTTCCTCTGCACCAAGCGGAAGATGGCACAGGCTGTTACCCTCACCGTAGCCCAGGCCTTCAAAGTCGC GGGGGCCCGCCAAGACTGCACCCCCCTTGAAGAGCTTGGTCGCCACTGGGAACCTGCTGGACTTAGAGGAGAC GGCTAAGGCCCCGCTGTCCACGGTCAGCGCCAACACCACCACCACCAGGAGGTGCCGCGGCCACAAGCCTTGAG CTGGGGCTGCTCCAGGGACCAGGCTCTGGGACCCGTGACTTGTGGGCCTCTGGGAGGACCAGACCCAGCCCGGTA GTGCCCAGGCGCAGGATAGGGGATGAACAATGTCCCTTTTGAACCTGAGGCTGCATCCCCAACAGGCTTGGCTCC CAGCACAGCTGTCTCCTCACAATGCTTGGCCTCTGGCCTGAGCGTCCACGGCTCTGCCCACCACAAGACCAGCC AAAGGCGCCCTTGTTCTTGGTGTGGCAGAGCTCGCTCCTACCACCCCTCCCCCTCAGCCGCCTGAATGAGGACCC AGAGACTTGGGCAGTCACCAGCTTGGTCCCTGACTCCCTCAGGGACTCAGGGCAAGCCCCCTGACCTCTGTCT CAGCTTTTTCATCTCAGTAAGGGTGATGACCTCTGCCAACGGAATCTCCCCGAGGAACCTGAAATTTAATTTTAA TTTTTCATTTGGAAATAATTTCAGACTGTGTTACAAAATTAGTACAGAGAATTCCTGTTCACCCGTCATCCAGAT ATATAATCTATAGAACTTACACATTTCTCCAGGTGCCCCTTCAGTGTCCTGTTTCTGGCCCAGGATCCATTGCAG AATCACATGTTAACTTGTCGTCTCTTTAATTTTTAAAAATCTGGGTACTGGGGGCTCCCCTGGTGTCCCTCGAGC CTGTTCTCTGCTGTTTTGGGAACCACCCTTGCCACTTGCCCATCCTCACCAGAACGCCATGGAGGGACCTCACCTG TCGCTTTTCTGCTGAGGCTGTGGGACTCCTGGCATCAGTTATCCCTCATGAACTTGGAATTTTGGCTTGGCTTTT GGAAGTAAATGAAGGCAAGAAAACTCCCTTCCCCACCCTCTTCCTTTTGGAATTTGAAAGCCATAGAAGTCATCA GGTCCAATGCCCTCCTTATTGAAGGAAAAGCTGAGTTTCAACGTGGAGCAGTGACTTGCCCAAGGTCTCACGG GCAGGTAGCATGGACCAGGGCACTGAACCCACCTGGGTCTCCAGACACCCTGGGACATGGCCTTTCTCCTCTCCC TCCAGGCCCCACCCTGAGCTTGTGTCCTGAGTCCCTGTAGCTTACCCAGGGCTGGGACAAGCCCCAGCTGTGAG CATGGGCTCCCCCAAACATAGTTCTTATCTCCTGCTTTGTTTTTCCCAAGGAGCTGGATGATGGCCTGGATGAAG CGTTTTCGAGGCTTGCCCAGTCTCGGACAAACCCTCAGGTCCTGGACACTGGCCTGACAGCCCAGGACATGCATT ACGCCCAGTGCCTCTCGCCTGTCGACTGGGACAAGCCTGACAGCAGCAGCACAGAGCAGGATGACCTCTTCAGCT TCTGAGGGCCCGGGCCAGCCGGACACAAGCGGCCCTGACACGTGATGGACCAAAGCCACCTGCTGCGGGGGAGC CAGTTCTGGGGCCCGCCTGCCACCTCTCCCAGCCCTCAGCATTGTCAGCCTGAAGATCAGAGCTGCAGCCAGTCA GACTTCTGGCTTATGCTCAGAAGCCAGTCTGCGTCAGGCACGTCTCCTGCTGCGTGACATGTGCAGTGCTGTAAT CGGCTCCCGCTTGCTCCTCGGAGCAAGCTCTGCCCTGGCTGTGGGTATCAGGACTGTGACCAAAGCATTTCTAG TCCCTTCTCTTTCTAAGGACCCAAATTTCCCTGGGGGCATCCTGCTTCCTGAAAGCTGTTGGATTTCAGTGAT TTTTCCCCCCACCCCCAGCACAGGAGAGCACCCACAGCCGCAGAAGGGGAATGTGTCCTCCTGCTCTGCTTCCT CAGGGCCCAGCAGGCGGGGGTTTGAGCCCTGGACCCCAGGCTCTTAGAGACTAAGGGGCAGCTCCTGACCAAAGA CGATACAGCTTGGCACTTTAAAGCATTAACAGCAGGTGTGACCCTGAGGGCTCCTCCATGGTGCATTGAGTC CAGCTTTCCTTCTGCCCTTCCTCCAGGAGAAGGGGCCCCAAGGTCCCCGTGGATGGTCTCCACCTGTGCTTGGAAC CAGTGTAACTGGCTGCTCCCTGCTCCCAGGGACTGACACGGGGATCATCTCTGTGACCGCCCTCCGTCGGGCCCC

### 60/2682 FIGURE 55B

# FIGURE 56

MLFSLKYLGMTLVEQPKGEELSAAAIKRIVATAKASGKKLQKVTLKVSPRGIILTDNLTNQLIENVSIYRISYCT ADKMHDKVFAYIAQSQHNQSLECHAFLCTKRKMAQAVTLTVAQAFKVAFEFWQVSKEEKEKRDKASQEGGDVLGA RQDCTPPLKSLVATGNLLDLEETAKAPLSTVSANTTNMDEVPRPQALSGSSVVWVSGCVASRSVILSLTSG

CGGAGGCCGCCGCCCTGCACCGCCCTCCTGGAGGCCACTTGGAGAGTCCGGCCCCGAGGAGGCCATGGCCAC AAGTGCCCACAGCTGGCCCCAGGTTGCCAGCGTCGCTACAGCCCAGACCAAGGCAGAATAATCTCCGGATGAGCT GAAACACCAGGCCAACCACAGCTGGGGATAAAATAGCACAACCACACCCTGCCGTCCAGCCCTCCCAGCCTGTG CCCCTTCCTAGTACCACCAGCAACCATCAATCCCGTCTCCTCCTGCCTCCTCCTGCAATCCACCCCGCCACGA CTATCGCCATGCCAGGCCCTGATCGCAGAGAACTTCCGCTTCCTGTCACTTTTCTTCAAGAGCAAGGATGTGATGA TTTTCAACGGCCTGGTGGCACTGGGCACGGTGGGCAGCCAGGAGCTGTTCTCTGTGGTGGCCTTCCACTGCCCCT GCTCGCCGGCCCGGAACTACCTGTACGGGCTGGCGGCCATCGGCGTGCCCCTGGTGCTCTTCATCATTGGCA TCATCCTCAACAACCACACCTGGAACCTCGTGGCCGAGTGCCAGCACCGGAGGACCAAGAACTGCTCCGCCGCCC CCACCTTCCTCCTAAGCTCCATCCTGGGACGTGCGGCTGTGGCCCCTGTCACCTGGTCTGTCATCTCCCTGC TCCCATCAGCCCACGCCACTGAAATCCTGGCCAGGTTCCCCTGCAAGGAGAACCCTGACAACCTGTCAGACTTCC GGGAGGAGGTCAGCCGCAGGCTCAGGTATGAGTCCCAGCTCTTTGGATGGCTGCTCATCGGCGTGGTGGCCATCC TGGTGTTCCTGACCAAGTGCCTCAAGCATTACTGCTCACCACTCAGCTACCGCCAGGAGGCCTACTGGGCGCAGT ACCGCGCCAATGAGGACCAGCTGTTCCAGCGCACGGCCGAGGTGCACTCTCGGGTGCTCGCTGCCAACAATGTGC GCCGCTTCTTTGGCTTTGTGGCGCTCAACAAGGATGATGAGGAACTGATTGCCAACTTCCCAGTGGAAGGCACGC AGCCACGGCCACAGTGGAATGCCATCACCGGCGTCTACTTGTACCGTGAGAACCAGGGCCTCCCACTCTACAGCC GCCTGCACAAGTGGGCCCAGGGTCTGGCAGGCAACGGCGCCCCTGACAACGTGGAGATGGCCCTGCTCCCCT TCCATATCAGAAGGGGATTTTTAAAAAACTGTTATCTTCTTGGCCAGGGGAAAGGACCACAAGGCAATCTGGGGT GTGGACAGACCCAGTAGACAATGGAAGCCCAGCCAGCAGGGGCCAGGTGACAGTGAAGCTCACCAGTGGGCTCCTT TATGGTACTCTATGCAGTTAACATGTATCTAGCTGCATAGGGACACCCAGCGCAGCAGTGCACCACTGGGAAGTG AAAAAA

# 63/2682 FIGURE 58

MAALIAENFRFLSLFFKSKDVMIFNGLVALGTVGSQELFSVVAFHCPCSPARNYLYGLAAIGVPALVLFIIGIIL NNHTWNLVAECQHRRTKNCSAAPTFLLLSSILGRAAVAPVTWSVISLLRGEAYVCALSEFVDPSSLTAREEHFPS AHATEILARFPCKENPDNLSDFREEVSRRLRYESQLFGWLLIGVVAILVFLTKCLKHYCSPLSYRQEAYWAQYRA NEDQLFQRTAEVHSRVLAANNVRRFFGFVALNKDDEELIANFPVEGTQPRPQWNAITGVYLYRENQGLPLYSRLH KWAQGLAGNGAAPDNVEMALLPS

ACGAGGGACGCAGCCATGCCGGAGGCGGCTTTGGAAGCCGTGCGGAGCGAGTTACGAGAATTCCCGGCCGCTGCA AGGGAGCTCTGCGTGCCTCTTGCTGTGCCCTACCTGGACAAACCCCCAACTCCGCTCCACTTCTACCGGGACTGG TATTTCAGAGCCACAGTGGGCTCCACAGAGGTGAGTGGCCGTGACCCCAGATGGTTACGCGGATGCCGTGAGA GGGGATCGCTTCATGATGCCAGCTGAGCCCCCCTGCCCCTGAGCTTCGTGCTGGATGTGCTGGAGGGCCGGGCC CAGCACCCTGGAGTCCTCTATGTGCAGAAGCAGTGCTCCAACCTGCCCAGCGAGCTGCCCCAGCTGCTGAT GCGGCTGCAGTGACTTCTTTGCACAAGGACCACTATGAGAACCTCTACTGCGTGGTCTCAGGAGAGAAGCATTTC CTGTTCCATCCGCCCAGCGACCGGCCCTTCATCCCCTATGAGCTGTACACGCCGGCAACCTACCAGCTAACTGAA CGTGTCCTGCAGGCCCATCGCCTACCCTCTAAGGACCTAGTGACCCCCTCTGACTGCTACGTGACTCTCTGGCTG  $\tt CCCACGGCCTGCAGGCCACAGGCTCCAGACACGCCACGGTCAAGAACAGCAGTAGCCCTGTCTGGAACCAGAGCTTT$ CACTTCAGGATCCACAGGCAGCTCAAGAATGTCATGGAACTGAAAGTCTTTGACCAGGACCTGGTGACCGGAGAT AGCCCTCAGGGTGAGGGGCGCCTGGAAGTTGAATTTCGCCTGCAGAGTCTGGCTGACCGTGGCGAGTGGCTCGTC AGCAATGGCGTTCTGGTGGCCCGGGAGCTCTCCTGCTTGCACGTTCAACTGGAGGAGACAGGAGACCAGAAGTCC TCAGAGCACAGAGTTCAGCTTGTGGTTCCTGGGTCCTGTGAGGGTCCGCAGGAGGCCTCTGTGGGCACTGGCACC TTCCGCTTCCACTGCCCAGCCTGCTGGGAGCAGGAGCTGAGTATTCGCCTGCAGGATGCCCCCGAGGAGCAACTA AAGGCGCCACTGAGTGCCCTCTGGTCAAGTGGTGAGGCTTGTCTTCCCCACGTCCCAGGAGCCCCTGATG AGAGTGGAGCTGAAAAAAGAAGCAGGACTGAGGGAGCTGGCCGTGCGACTGGGCCTTCGGGCCCTGTGCAGAGGAG CAGGAGGATGAGATCCCAGTGGTAGCTATTATGGCCACTGGTGGTGGGATCCGGGCAATGACTTCCCTGTATGGG CAGCTGGCTGGCCTGAAGGAGCTGGGCCTCTTGGATTGCGTCTCCTACATCACCGGGGCCTCGGGCTCCACCTGG GCCTTGGCCAACCTTTATGAGGACCCAGAGTGGTCTCAGAAGGACCTGGCAGGGCCCACTGAGTTGCTGAAGACC GCCCGCTTGGGCTACCCAAGCTGCTTCACCAACCTGTGGGCCCTCATCAACGAGGCGCTGCTGCATGATGAGCCC CATGATCACAAGCTCTCAGATCAACGGGAGGCCCTGAGTCATGGCCAGAACCCTCTGCCCATCTACTGTGCCCTC AACACCAAAGGGCAGAGCCTGACCACTTTTGAATTTGGGGAGTGGTGCGAGTTCTCCCCTACGAGGTCGGCTTC  $\tt CCCAAGTACGGGGCCTTCATCCCCTCTGAGCTCTTTGGCTCCGAGTTCTTTATGGGGCAGCTGATGAAGAGGCTT$ CCTGAGTCCCGCATCTGCTTCTTAGAAGGTATCTGGAGCAACCTGTATGCAGCCAACCTCCAGGACAGCTTATAC TGGGCCTCAGAGCCCAGCCAGTTCTGGGACCGCTGGGTCAGGAACCAGGCCAACCTGGACAAGGAGCAGGTCCCC CTTCTGAAGATAGAAGAACCACCCTCAACAGCCGGCAGRATAGCTGAGTTTTTCACCGATCTTCTGACGTGGCGT CCACTGGCCCAGGCCACACATAATTTCCTGCGTGGCCTCCATTTCCACAAAGACTACTTTCAGCATCCTCACTTC TCCACATGGAAAGCTACCACTCTGGATGGCTCCCCAACCAGCTGACACCCTCGGAGCCCCACCTGTGCCTGCTG GATGTTGGCTACCTCATCAATACCAGCTGCCTGCCCCTCCTGCAGCCCACTCGGGACGTGGACCTCATCCTGTCA TTGGACTACAACCTCCACGGAGCCTTCCAGCAGTTGCAGCTCCTGGGCCGGTTCTGCCAGGAGCAGGGGATCCCG TTCCCACCCATCTCGCCCAGCCCCGAAGAGCAGCTCCAGCCTCGGGAGTGCCACACCTTCTCCGACCCCACCTGC CCCGGAGCCCCTGCGGTGCTGCACTTTCCTCTGGTCAGCGACTCCTTCCGGGAGTACTCGGCCCCTGGGGTCCGG CGGACACCCGAGGAGGCGGCAGCTGGGGAGGTGAACCTGTCTTCATCGGACTCTCCCTACCACTACACGAAGGTG ACCTACAGCCAGGAGGACGTGGACAAGCTGCTGCACCTGACACTTACAATGTCTGCAACAACCAGGAGCAGCTG  $\mathtt{CTGGAGGCTCTGCGCCAGGCAGTGCAGCGGAGGCGGCAGGCCCCAC}$ CTAACTCTCATTCATTCCCTGGCTGCTGAGTTGCAGGTGGGAACTGTCATCACGCAGTGCTTCAGAGCCTCGGGC TCAGGTGGCACKGTCCCAGGGTCCAGGCTGAGGGCTGGGAGCTCCCTTGCGCCTCAGCAGTTTGCAGTGGGGTAA GGAGGCCAAGCCCATTTGTGTAATCACCCAAAACCCCCGGCCTGTGCCTGTTTTCCCTTCTGCGCTACCTTGAG 

### 65/2682 FIGURE 60

MAEAALEAVRSELREFPAAARELCVPLAVPYLDKPPTPLHFYRDWVCPNRPCIIRNALQHWPALQKWSLPYFRAT VGSTEVSVAVTPDGYADAVRGDRFMMPAERRLPLSFVLDVLEGRAQHPGVLYVQKQCSNLPSELPQLLPDLESHV PWASEALGKMPDAVNFWLGEAAAVTSLHKDHYENLYCVVSGEKHFLFHPPSDRPFIPYELYTPATYQLTEEGTFK VVDEEAMEKAEVSRTCLLTVRVLQAHRLPSKDLVTPSDCYVTLWLPTACSHRLQTRTVKNSSSPVWNQSFHFRIH RQLKNVMELKVFDQDLVTGDDPVLSVLFDAGTLRAGEFRRESFSLSPQGEGRLEVEFRLQSLADRGEWLVSNGVL VARELSCLHVQLEETGDQKSSEHRVQLVVPGSCEGPQEASVGTGTFRFHCPACWEQELSIRLQDAPEEQLKAPLS ALPSGQVVRLVFPTSQEPLMRVELKKEAGLRELAVRLGFGPCAEEQAFLSRRKQVVAAALRQALQLDGDLQEDEI PVVAIMATGGGIRAMTSLYGQLAGLKELGLLDCVSYITGASGSTWALANLYEDPEWSQKDLAGPTELLKTQVTKN KLGVLAPSQLQRYRQELAERARLGYPSCFTNLWALINEALLHDEPHDHKLSDQREALSHGQNPLPIYCALNTKGQ SLTTFEFGEWCEFSPYEVGFPKYGAFIPSELFGSEFFMGQLMKRLPESRICFLEGIWSNLYAANLQDSLYWASEP SQFWDRWVRNQANLDKEQVPLLKIEEPPSTAGRIAEFFTDLLTWRPLAQATHNFLRGLHFHKDYFQHPHFSTWKA TTLDGLPNQLTPSEPHLCLLDVGYLINTSCLPLLQPTRDVDLILSLDYNLHGAFQQLQLLGRFCQEQGIPFPPIS PSPEEQLQPRECHTFSDPTCPGAPAVLHFPLVSDSFREYSAPGVRRTPEEAAAGEVNLSSSDSPYHYTKVTYSQE DVDKLLHLTHYNVCNNOEOLLEALROAVQRRRQRRPH

CTTCGGGTGTACGTGCTCCGGGATCTTCAGCACCCGCGGCCGCCATCGCCGTCGCTTGGCTTCTTCTGGACTCAT CTGCGCCACTTGTCCGCTTCACACTCCGCCGCCATCATGGTGAAGCTCGCGAAGGCAGGTAAAAATCAAGGTGAC CCCAAGAAAATGGCTCCTCCTCCAAAGGAGGTAGAAGAAGATGAGTGAAGAATGTCAGAAGATGAAGAA GATGATAGCAGTGGAGAAGAGGTCGTCATACCTCAGAAGAAGGCAAGAAGGCTGCTGCAACCTCAGCAAAGAAG GTGGTCGTTTCCCCAACAAAAAAGGTTGCAGTTGCCACACCAGCCAAGAAAGCAGCTGTCACTCCAGGCAAAAAG GCAGCAGCAACACCTGCCAAGAAGACAGTTACACCAGCCAAAGCAGTTACCACACCTGGCAAGAAGAGGGAGCCACA CCAGGCAAAGCATTGGTAGCAACTCCTGGTAAGAAGGGTGCTGCCATCCCAGCCAAGGGGGCAAAGAATGGCAAG AATGCCAAGAAGGAAGACAGTGATGAAGAGGAGGATGATGACAGTGAGGAGGATGAGGAGGATGACGAGGACGAG GATGAGGATGACGAAGATGATGAGGATGACGATGACGATGAGGAAGATGACTCTGAAGAAGAAGCTATGGAGACT ACACCAGCCAAAGGAAAGAAAGCTGCAAAAGTTGTTCCTGTGAAAGCCAAGAACGTGGCTGAGGATGAAGATGAA GAAGAGGATGATGAGGACGAGGATGACGACGACGAGGATGATGATGATGATGATGATGATGATGATGAGGAG GAGGAAGAAGAGGAGGAGGAGGAGCCTGTCAAAGAAGCACCTGGAAAACGAAAGAAGGAAATGGCCAAACAGAAA GCAGCTCCTGAAGCCAAGAAACAGAAAGTGGAAGGCACAGAACCGACTACGGCTTTCAATCTCTTTGTTGGAAAC CTAAACTTTAACAAATCTGCTCCTGAATTAAAAACTGGTATCAGCGATGTTTTTGCTAAAAATGATCTTGCTGTT GTGGATGTCAGAATTGGTATGACTAGGAAATTTGGTTATGTGGATTTTGAATCTGCTGAAGACCTGGAGAAAGCG TTGGAACTCACTGGTTTGAAAGTCTTTGGCAATGAAATTAAACTAGAGAAACCAAAAGGAAAAGACAGTAAGAAA GAGCGAGATGCGAGAACACTTTTGGCTAAAAATCTCCCTTACAAAGTCACTCAGGATGAATTGAAAGAAGTGTTT GAAGATGCTGCGGAGATCAGATTAGTCAGCAAGGATGGGAAAAGTAAAGGGATTGCTTATATTGAATTTAAGACA GAAGCTGATGCAGAGAAAACCTTTGAAGAAAAGCAGGGAACAGAGATCGATGGGCGATCTATTTCCCTGTACTAT ACTGGAGAGAAAGGTCAAAATCAAGACTATAGAGGTGGAAAGAATAGCACTTGGAGTGGAATCAAAAAACTCTG GTTTTAAGCAACCTCTCCTACAGTGCAACAGAAGAACTCTTCAGGAAGTATTTGAGAAAGCAACTTTTATCAAA GTACCCCAGAACCAAAATGGCAAATCTAAAGGGTATGCATTTATAGAGTTTGCTŢCATTCGAAGACGCTAAAGAA GCTTTAAATTCCTGTAATAAAAGGGAAATTGAGGGCAGAGCAATCAGGCTGGAGTTGCAAGGACCCAGGGGATCA CCTAATGCCAGAAGCCAGCCATCCAAAACTCTGTTTGTCAAAGGCCTGTCTGAGGATACCACTGAAGAGACATTA AAGGAGTCATTTGACGGCTCCGTTCGGGCAAGGATAGTTACTGACCGGGAAACTGGGTCCTCCAAAGGGTTTTGGT TTTGTAGACTTCAACAGTGAGGAGGATGCCAAGGAGGCCATGGAAGACGGTGAAATTGATGGAAATAAAGTTACC TTGGACTGGGCCAAACCTAAGGGTGAAGGTGGCTTCGGGGGTCGTGGTGGAGGCAGAGGCGGCTTTGGAGGACGA GGTGGTGGTAGAGGAGGCCGAGGAGGATTTGGTGGCAGAGGCCGGGGAGGCTTTGGAGGGCGAGGAGGCTTCCGA GGAGGCAGAGGAGGAGGAGGTGACCACAAGCCACAAGGAAAGAAGACGAAGTTTGAA<u>TAG</u>CTTCTGTCCCTCTGC TTTCCCTTTTCCATTTGAAAGAAAGGACTCTGGGGTTTTTACTGTTACCTGATCAATGACAGAGCCTTCTGAGGA CATTCCAAGACAGTATACAGTCCTGTGGTCTCCTTGGAAATCCGTCTAGTTAACATTTCAAGGGCAATACCGTGT TGGTTTTGACTGGATATTCATATAAACTTTTTAAAGAGTTGAGTGATAGAGCTAACCCTTATCTGTAAGTTTTGA ATTTATATTGTTTCATCCCATGTACAAAACCATTTTTTCCTAC

## 67/2682 FIGURE 62

 $\tt CTCCCAAAGCAGAATTGCAGCTGCCGCCGCCGCCACCTCCAGGCCACTATGGCGCCTGGGGCTGCCCAGGAGCTT$ CAGGCCAAGTTGGCAGAGATCGGAGCTCCGATCCAGGGTAATCGCGAGGAGCTGGTGGAGCGGCTGCAGAGCTAC ACCCGCCAGACTGGCATCGTGCTGAATCGGCCGGTTTTGAGAGGGGGAAGATGGGGACAAAGCCGCTCCACCTCCC ATGTCGGCACAGCTCCCTGGAATTCCCATGCCACCACCTTTGGGACTCCCCCCTCTGCAGCCTCCTCCGCCA CCCCACCACCTCCACCAGGCCTTGGCCTTGGCTTTCCTATGGCCCACCAAATTTGGGGCCCCCGCCTCCT CTCCGTGTGGGTGAGCCAGTGGCACTGTCAGAGGAGGAGCGGCTGAAGTTGGCTCAGCAGCAGCAGGCGCATTGCTG ATGCAGCAGGAGGAGCGTGCCAAGCAGCAGGAGATCATTCGCTGAAGGAACATGAGCTCTTGGAGCAGCAGAAG CGGGCAGCTGTTTACTGGAGCAGGAACGACAGCAGGAGATTGCCAAGATGGGCACCCCAGTCCCTCGGCCCCCA CAAGACATGGGCCAGATTGGTGTGCGCACTCCTCTGGGTCCTCGAGTAGCTGCTCCAGTGGGCCCAGTGGGCCCC AGAGAGATGGATGACCCCTCTGTGGGCCCCAAGATCCCCCAGGCTTTGGAGAAGATCCTGCAGCTGAAGGAGAGC GCGTCAGAGACTGAGGAGGACACAGTGTCCGTATCTAAAAAGGAGAAAAACCGGAAGCGTAGGAACCGAAAGAAG AAGAAAAAGCCCCAGCGGGTGCGAGGGGTGTCCTCTGAGAGCTCTGGGGACCGGGAGAAAGACTCAACCCGGTCC CGTGGCTCTGATTCCCCAGCAGCTGATGTTGAGATTGAGTATGTGACTGAAGAACCTGAAATTTACGAGCCCAAC TTTATCTTCTTTAAGAGGATCTTTGAGGCTTTTAAGCTCACTGATGATGTGAAGAAGAGAAAAGAGAAAGAGCCA GAGAAACTTGACAAACTGGAGAACTCTGCAGCCCCCAAGAAGAAGGATTTGAAGAGGAGCACAAGGACAGTGAT GATGACAGCAGTGATGACGAGCAGGAAAAGAAGCCAGAAGCCCCCAAGCTGTCCAAGAAGAAGTTGCGCCGAATG AACCGCTTCACTGTGGCTGAACTCAAGCAGCTGGTGGCTCGGCCCGATGTCGTGGAGATGCACGATGTGACAGCG CAGGACCCTAAGCTCTTGGTTCACCTCAAGGCCACTCGGAACTCTGTGCCTGTGCCACGCCACTGGTGTTTTAAG CGCAAATACCTGCAGGGCAAACGGGGCATTGAGAAGCCCCCCTTCGAGCTGCCAGACTTCATCAAACGCACAGGC ATCCAGGAGATGCGAGAGGCCCTGCAGGAGAAGGAAGAACAGAAGACCATGAAGTCAAAAATGCGAGAGAAAGTT CGGCCTAAGATGGCCAAAATTGACATCGACTACCAGAAACTGCATGATGCCTTCTTCAAGTGGCAGACCAAGCCA AAGCTGACCATCCATGGGGACCTGTACTATGAGGGGAAGGAGTTCGAGACACGACTGAAGGAGAAGAAGCCAGGA CTGATTGCCATGCAGCGATATGGACCACCCCATCGTATCCCAACCTGAAAATCCCTGGGCTGAACTCGCCCATC CCTGAGAGCTGTTCCTTTGGGTACCATGCTGGTGGCTGGGGCAAACCTCCAGTGGATGAGACTGGGAAACCGCTC TATGGGGACGTGTTTGGAACCAATGCTGCTGAATTTCAGACCAAGACTGAGGAAGAAGAGATTGATCGGACCCCT TGGGGGGAACTGGAACCATCTGATGAAGAATCCTCAGAAGAAGAGGAAGAAGAAGAAGTGATGAAGACAAACCA GATGAGACAGGCTTTATTACCCCTGCAGACAGTGGCCTTATCACTCCTGGAGGCTTTTCATCAGTGCCTGCTGGA ATGGAGACCCCTGAACTCATTGAGCTGAGGAAGAAGAAGATTGAGGAGGCGATGGACGGAAGTGAGACACCTCAG CTCTTCACTGTGTTGCCAGAGAAGAGAACAGCCACTGTTGGAGGGGCCATGATGGGATCAACCCACATTTATGAC ATGTCCACGGTTATGAGCCGGAAGGGCCCGGCTCCTGAGCTGCAAGGTGTGGAAGTGGCGCTGGCGCCTGAAGAG TTGGAGCTGGATCCTATGGCCATGACCCAGAAGTATGAGGAGCATGTGCGGGAGCAGCAGGCTCAAGTAGAGAAG AGCCGTGGGGGCAGCAAGAAATATAAGGAGTTCAAGTTT<u>TAG</u>GTCCCCTCACACTAGCCCTTTTTTTGGCCCTAC GTCTGGATGCCTGGGCTTCACACAAGAACCACCTCTCCCGCAGTTCCCAAGGACTTGTCATTTCATGTTCTTATT 

### 69/2682 FIGURE 64

MAPGAAQELQAKLAEIGAPIQGNREELVERLQSYTRQTGIVLNRPVLRGEDGDKAAPPPMSAQLPGIPMPPPPLG
LPPLQPPPPPPPPPBLGLGFPMAHPPNLGPPPPLRVGEPVALSEEERLKLAQQQAALLMQQEERAKQQGDHSLK
EHELLEQQKRAAVLLEQERQQEIAKMGTPVPRPPQDMGQIGVRTPLGPRVAAPVGPVGPTPTVLPMGAPVPRPRG
PPPPPGDENREMDDPSVGPKIPQALEKILQLKESRQEEMNSQQEEEEMETDARSSLGQSASETEEDTVSVSKKEK
NRKRRNRKKKKKPQRVRGVSSESSGDREKDSTRSRGSDSPAADVEIEYVTEEPEIYEPNFIFFKRIFEAFKLTDD
VKKEKEKEPEKLDKLENSAAPKKKGFEEEHKDSDDDSSDDEQEKKPEAPKLSKKKLRRMNRFTVAELKQLVARPD
VVEMHDVTAQDPKLLVHLKATRNSVPVPRHWCFKRKYLQGKRGIEKPPFELPDFIKRTGIQEMREALQEKEEQKT
MKSKMREKVRPKMGKIDIDYQKLHDAFFKWQTKPKLTIHGDLYYEGKEFETRLKEKKPGDLSDELRISLGMPVGP
NAHKVPPPWLIAMQRYGPPPSYPNLKIPGLNSPIPESCSFGYHAGGWGKPPVDETGKPLYGDVFGTNAAEFQTKT
EEEEIDRTPWGELEPSDEESSEEEEEEESDEDKPDETGFITPADSGLITPGGFSSVPAGMETPELIELRKKKIEE
AMDGSETPQLFTVLPEKRTATVGGAMMGSTHIYDMSTVMSRKGPAPELQGVEVALAPEELELDPMAMTQKYEEHV
REOOAOVEKEDFSDMVAEHAAKQKQKKRKAQPQDSRGGSKKYKEFKF

TGACCAGTGGCCACCTCTGCAGTGTCTTCCACAACCTGGTCTTGACTCTGCTGAACAAATCCTCTGACCTCA GGCCGCTGTGAACGTAGTTCCTGAGAGATAGCAAACATGCCCAACAGTGAGCCCGCATCTCTGCTGGAGCTGTT CAACAGCATCGCCACAAGGGGAGCTCGTAAGGTCCCTCAAAGCGGGAAATGCGTCAAAGGATGAAATTGATTC TGCAGTAAAGATGTTGGTGTCATTAAAAATGAGCTACAAAGCTGCCGCGGGGGAGGATTACAAGGCTGACTGTCC TCCAGGGAACCCAGCACCTACCAGTAATCATGGCCCAGATGCCACAGAAGCTGAAGAGGATTTTGTGGACCCATG GACAGTACAGACAAGCAGTGCAAAAGGCATAGACTACGATAAGCTCATTGTTCGGTTTGGAAGTAGTAAAATTGA CANAGAGCTAATAAACCGAATAGAGAGAGCCACCGGCCAAAGACCACACCACTTCCTGCGCAGAGGCATCTTCTT CTCACACAGAGATATGAATCAGGTTCTTGATGCCTATGAAAATAAGAAGCCATTTTATCTGTACACGGGCCGGGG CGTGCCCTTGGTCATCCAGATGACGGATGACGAGAAGTATCTGTGGAAGGACCTGACCCTGGACCAGGCCTATGG CGATGCTGTTGAGAATGCCAAGGACATCATCGCCTGTGGCTTTGACATCAACAAGACTTTCATATTCTCTGACCT GGACTACATGGGGATGAGCTCAGGTTTCTACAAAAATGTGGTGAAGATTCAAAAGCATGTTACCTTCAACCAAGT GAAAGGCATTTTCGGCTTCACTGACAGCGACTGCATTGGGAAGATCAGTTTTCCTGCCATCCAGGCTGCTCCCTC CTTCAGCAACTCATTCCCACAGATCTTCCGAGACAGGACGGATATCCAGTGCCTTATCCCATGTGCCATTGACCA GGATCCTTACTTTAGAATGACAAGGGACGTCGCCCCCAGGATCGGCTATCCTAAACCAGCCCTGTTGCACTCCAC CTTCTTCCCAGCCCTGCAGGGCCCCAGACCAAAATGAGTGCCAGCGACCCAAACTCCTCCATCTTCCTCACCGA CACGGCCAAGCAGATCAAAACCAAGGTCAATAAGCATGCGTTTTCTGGAGGAGAGACACCATCGAGGAGCACAG GCAGTTTGGGGGCAACTGTGATGTGGACGTGTCTTTCATGTACCTGACCTTCTTCCTCGAGGACGACGACAAGCT CGAGCAGATCAGGAAGGATTACACCAGCGGAGCCATGCTCACCGGTGAGCTCAAGAAGGCACTCATAGAGGTTCT GCAGCCCTTGATCGCAGAGCACCAGGCCCGGCGCAAGGAGGTCACGGATGAGATAGTGAAAGAGTTCATGACTCC  ${\tt CCGGAAGCTGTCCTTCGACTTTCAG}$  CACTCGTTTTACATATGCTTATAAAAGAAGTGATGTATCAGTAATGT ATCAATAATCCCAGCCCAGTCAAAGCACCGCCACCTGTAGGCTTCTGTCTCATGGTAATTACTGGGCCTGGCCTC TGTAAGCCTGTGTATGTTATCAATACTGTTTCTTCCTGTGAGTTCCATTATTTCTATCTCTTATGGGCAAAGCAT TGTGGGTAATTGGTGCTGGCTAACATTGCATGGTCGGATAGAGAAGTCCAGCTGTGAGTCTCTCCCCAAAGCAGC CCCACAGTGGAGCCTTCGGCTGGAAGTCCATGGGCCACCCTGTTCTTGTCCATGGAGGACTTCCGAGGGTTCCAA GTAACCTAGAAAGTGCTTTGAAATATTGATGTGGGGAGGTTTATTGAGCACAAGATGTATTTCAGCCCATGCCCC CTCCCAAAAAGAAATTGATAAGTAAAAGCTTCGTTATACATTTGACTAAGAAATCACCCAGCTTTAAAGCTGCTT TTAACAATGAAGATTGAACAGAGTTCAGCAATTTTGATTAAATTAAGACTTGGGGGTGAAACTTTCCAGTTTACT GAACTCCAGACCATGCATGTAGTCCACTCCAGAAATCATGCTCGCTTCCCTTGGCACACCAGTGTTCTCCTGCCA AATGACCCTAGACCCTCTGTCCTGCAGAGTCAGGGTGGCTTTTCCCCTGACTGTCCGATGCCAAGGAGTCCTG GCCTCCGCAGATGCTTCATTTTGACCCTTGGCTGCAGTGGAAGTCAGCACAGAGCAGTGCCCTGGCTGTCCTG TTTCATCACGCAGCATGTGCAGGCCTGGAAGAGCCAAAATCTCAGGGAAGTCCTTGGTTGATGTATCTGGG 

# 71/2682 FIGURE 66

MPNSEPASLLELFNSIATQGELVRSLKAGNASKDEIDSAVKMLVSLKMSYKAAAGEDYKADCPPGNPAPTSNHGP
DATEAEEDFVDPWTVQTSSAKGIDYDKLIVRFGSSKIDKELINRIERATGQRPHHFLRRGIFFSHRDMNQVLDAY
ENKKPFYLYTGRGPSSEAMHVGHLIPFIFTKWLQDVFNVPLVIQMTDDEKYLWKDLTLDQAYGDAVENAKDIIAC
GFDINKTFIFSDLDYMGMSSGFYKNVVKIQKHVTFNQVKGIFGFTDSDCIGKISFPAIQAAPSFSNSFPQIFRDR
TDIQCLIPCAIDQDPYFRMTRDVAPRIGYPKPALLHSTFFPALQGAQTKMSASDPNSSIFLTDTAKQIKTKVNKH
AFSGGRDTIEEHRQFGGNCDVDVSFMYLTFFLEDDDKLEQIRKDYTSGAMLTGELKKALIEVLQPLIAEHQARRK
EVTDEIVKEFMTPRKLSFDFQ

CCTGCTCGGCGACCAGCGGGGATCCTCCCCCAGCCGCAAGTCCACGAAGAAAGCAACGAATGAAAATTATGAAGA CAACGAGAAGTCAGACTCCTCCGGGTCGCGCTCCAGCTGCTTCGGCTTCGTCGCCTACTCTGTGAACTCCGGGGA GTCCCCTTCTCCATCGCCCTCTCCCAGAAAGCTCCGGTGCTTGGACCAGCTAGAGTCTGAGAAAAGAGGAGAGGCG CGAACGCCACTCCAAAAAGAGAGGGTTAAAGAGGGCCAACCCTAACGATACGCTTGACTTTCTGTGGCTGGGAAC GGGTGAGAAAGTCCAGGCCATGTATATCTGGATCGATGGTACTGGAGAAGGACTGCGCTGCAAGACCCGGACCCT GGACAGTGAGCCCAAGTGTGTGGAAGAGTTGCCTGAGTGGAATTTCGATGGCTCCAGTACTTTACAGTCTGAGGG TTCCAACAGTGACATGTATCTCGTGCCTGCCGTGCTTTCGGGACCCCTTCCGTAAGGACCCTAACAAGCTGGT GTTATGTGAAGTTTTCAAGTACAATCGAAGGCCTGCAGAGACCAATTTGAGGCACACCTGTAAACGGATAATGGA CATGGTGAGCAACCAGCACCCTGGTTTGGCATGGAGCAGGAGTATACCCTCATGGGGACAGATGGGCACCCCTT CAGGGACATCGTGGAGGCCCATTACCGGGCCTGCTTGTATGCTGGAGTCAAGATTGCGGGGACTAATGCCGAGGT CATGCCTGCCCAGTGGGAATTTCAGATTGGACCTTGTGAAGGAATCAGCATGGGAGATCATCTCTGGGTGGCCCG TTTCATCTTGCATCGTGTGTGTGAAGACTTTGGAGTGATAGCAACCTTTGATCCTAAGCCCATTCCTGGGAACTG GAATGGTGCAGGCTGCCATACCAACTTCAGCACCAAGGCCATGCGGGAGGAGAATGGTCTGAAGTACATCGAGGA GGCCATTGAGAAACTAAGCAAGCGGCACCAGTACCACATCCGTGCCTATGATCCCAAGGGAGGCCTGGACAATGC CCGACGTCTAACTGGATTCCATGAAACCTCCAACATCAACGACTTTTCTGCTGGTGTAGCCAATCGTAGCGCCAG CATACGCATTCCCCGGACTGTTGGCCAGGAGAAGAAGGGTTACTTTGAAGATCGTCGCCCCTCTGCCAACTGCGA CCCCTTTTCGGTGACAGAGCCCTCATCCGCACGTGTCTTCTCAATGAAACCGGCGATGAGCCCTTCCAGTACAA AAATTAAGTGGACTAGACCTCCAGCTGTTGAGCCCCTCCTAGTTCTTCATCCCACTCCAACTCTTCCCCCTCTCC CAGTTGTCCCGATTGTAACTCAAAGGGTGGAATATCAAGGTCGTTTTTTTCATTCCATGTGCCCAGTTAATCTTG CTTTCTTTGTTTGGCTGGGATAGAGGGGTCAAGTTATTAATTTCTTCACACCTACCCTCCTTTTTTTCCCTATCA CTGAAGCTTTTTAGTGCATTAGTGGGGAGGAGGGTGGGGAGACATAACCACTGCTTCCATTTAATGGGGTGCACC TGTCCAATAGGCGTAGCTATCCGGACAGAGCACGTTTGCAGAAGGGGGACTCTTCTTCCAGGTAGCTGAAAGGGG AAGACCTGACGTACTCTGGTTAGGTTAGGACTTGCCCTCGTGGTGGAAACTTTTCTTAAAAAAGTTATAACCAACT TGGGACTAGCCTGGCTTGGGACTAAATGCCCTGCTCTGAACACGAAGCTTAGTATAAACTGATGGATATCCCTAC CTTGAAAGAAGAAAAGGTTCTTACTGCTTGGTCCTTGATTTATCACACAAAGCAGAATAGTATTTTATATTTAA ATGTAAAGACAAAAACTATATGTATGGTTTTGTGGATTATGTGTGTTTTTGCTAAAGGAAAAAACCATCCAGGTC ACGGGGCACCAAATTTGAGACAAATAGTCGGATTAGAAATAAAGCATCTCATTTTGAGTAGAGAGCAAGGGAAGT GGTTCTTAGATGGTGATCTGGGATTAGGCCCTCAAGACCCTTTTGGGTTTCTGCCCTGCCCACCCTCTGGAGAAG GTGGGCACTGGATTAGTTAACAGACGACACGTTACTAGCAGTCACTTGATCTCCGTGGCTTTGGTTTAAAAGACA CACTTGTCCACATAGGTTTAGAGATAAGAGTTGGCTGTTCAACTTGAGCATGTTACTGACAGAGGGGGTATTGGG GTTATTTTCTGGTAGGAATAGCATGTCACTAAAGCAGGCCTTTTGATATTAAATTTTTTAAAAAGCAAAATTATA GAAGTTTAGATTTTAATCAAATTTGTAGGGTTTCTAGGTAATTTTTACAGAATTGCTTGTTTGCTTCAACTGTCT CCTACCTCTGCTCTTGGAGGAGATGGGGACAGGGCTGGAGTCAAAACACTTGTAATTTTGTATCTTGATGTCTTT TACCATTTCTGGTTCTTGTGTTGGCTGTGGCAGGCCAGCTGTGGTTTTCTTTTGCCATGACAACTTCTAATTGC 

## 73/2682 FIGURE 68

MTTSASSHLNKGIKQVYMSLPQGEKVQAMYIWIDGTGEGLRCKTRTLDSEPKCVEELPEWNFDGSSTLQSEGSNS DMYLVPAAMFRDPFRKDPNKLVLCEVFKYNRRPAETNLRHTCKRIMDMVSNQHPWFGMEQEYTLMGTDGHPFGWP SNGFPGPQGPYYCGVGADRAYGRDIVEAHYRACLYAGVKIAGTNAEVMPAQWEFQIGPCEGISMGDHLWVARFIL HRVCEDFGVIATFDPKPIPGNWNGAGCHTNFSTKAMREENGLKYIEEAIEKLSKRHQYHIRAYDPKGGLDNARRL TGFHETSNINDFSAGVANRSASIRIPRTVGQEKKGYFEDRRPSANCDPFSVTEALIRTCLLNETGDEPFQYKN

TGCTGCAGCCGCTGCCGCCGATTCCGGATCTCATTGCCACGCGCCCCGACGACGCCCCGACGACGTGCATTCCCGAT TCCTTTTGGTTCCAAGTCCAATATGGCAACTCTAAAGGATCAGCTGATTTATAATCTTCTAAAGGAAGAACAGAC CCCCCAGAATAAGATTACAGTTGTTGGGGTTGGTGCTGTTGGCATGGCCTGTGCCATCAGTATCTTAATGAAGGA CTTGGCAGATGAACTTGCTCTTGTTGATGTCATCGAAGACAAATTGAAGGGAGAGATGATGGATCTCCAACATGG CAGCCTTTTCCTTAGAACACCAAAGATTGTCTCTGGCAAAGACTATAATGTAACTGCAAACTCCAAGCTGGTCAT TATCACGGCTGGGGCACGTCAGCAAGAGGGAGAAAGCCGTCTTAATTTGGTCCAGCGTAACGTGAACATATTTAA ATTCATCATCCTAATGTTGTAAAATACAGCCCGAACTGCAAGTTGCTTATTGTTTCAAATCCAGTGGATATCTT GACCTACGTGGCTTGGAAGATAAGTGGTTTTCCCAAAAACCGTGTTATTGGAAGTGGTTGCAATCTGGATTCAGC TGGAGATTCCAGTGTGCCTGTATGGAGTGGAATGAATGTTGCTGGTGTCTCTCTGAAGACTCTGCACCCAGATTT AGGGACTGATAAAGATAAGGAACAGTGGAAAGAGGTTCACAAGCAGGTGGTTGAGAGTGCTTATGAGGTGATCAA ACTCAAAGGCTACACATCCTGGGCTATTGGACTCTCTGTAGCAGATTTGGCAGAGAGTATAATGAAGAATCTTAG GCGGGTGCACCCAGTTTCCACCATGATTAAGGGTCTTTACGGAATAAAGGATGATGTCTTCCTTAGTGTTCCTTG CATTTTGGGACAGAATGGAATCTCAGACCTTGTGAAGGTGACTCTGACTTCTGAGGAAGAGGCCCGTTTGAAGAA  ${\tt GAGTGCAGATACACTTTGGGGGGATCCAAAAGGAGCTGCAATTT} \underline{{\tt TAA}} {\tt AGTCTTCTGATGTCATATCATTTCACTGT}$ CTAGGCTACAACAGGATTCTAGGTGGAGGTTGTGCATGTTGTCCTTTTTATCTGATCTGTGATTAAAGCAGTAAT ATTTTAAGATGGACTGGGAAAAACATCAACTCCTGAAGTTAGAAATAAGAATGGTTTGTAAAATCCACAGCTATA TCCTGATGCTGGATGGTATTAATCTTGTGTAGTCTTCAACTGGTTAGTGTGAAATAGTTCTGCCACCTCTGACGC ACCACTGCCAATGCTGTACGTACTGCATTTGCCCCTTGAGCCAGGTGGATGTTTACCGTGTGTTATATAACTTCC TGGCTCCTTCACTGAACATGCCTAGTCCAACATTTTTTCCCAGTGAGTCACATCCTGGGATCCAGTGTATAAATC CAATATCATGTCTTGTGCATAATTCTTCCAAAGGATCTTATTTTGTGAACTATATCAGTAGTGTACATTACCATA TAATGTAAAAGATCTACATACAAACAATGCAACCAACTATCCAAGTGTTATACCAACTAAAACCCCCCAATAAAC CTTGAACAGTG

## 75/2682 FIGURE 70

MATLKDQLIYNLLKEEQTPQNKITVVGVGAVGMACAISILMKDLADELALVDVIEDKLKGEMMDLQHGSLFLRTP KIVSGKDYNVTANSKLVIITAGARQQEGESRLNLVQRNVNIFKFIIPNVVKYSPNCKLLIVSNPVDILTYVAWKI SGFPKNRVIGSGCNLDSARFRYLMGERLGVHPLSCHGWVLGEHGDSSVPVWSGMNVAGVSLKTLHPDLGTDKDKE QWKEVHKQVVESAYEVIKLKGYTSWAIGLSVADLAESIMKNLRRVHPVSTMIKGLYGIKDDVFLSVPCILGQNGI SDLVKVTLTSEEEARLKKSADTLWGIQKELQF

## 76/2682 FIGURE 71

ATGCCGCTGTGTCCTTCGCCAAGGACTTCCTGGCAGGTGGAGTGGCCGCAGCCATCTCCAAGACGGCGGTAGCGC GCATTATAGACTGCGTGGTCCGTATTCCCAAGGAGCAGGGAGTTCTGTCCTTCTGGCGCGGTAACCTGGCCAATG TCATCAGATACTTCCCCACCCAGGCTCTTAACTTCGCCTTCAAAGATAAATACAAGCAGATCTTCCTGGGTGGTG TGGACAAGAGAACCCAGTTTTGGCGCTACTTTGCAGGGAATCTGGCATCGGTGGTGCCGCAGGGGCCACATCCC TGTGTTTTGTGTACCCTCTTGATTTTGCCCGTACCCGTCTAGCAGCTGATGTGGGTAAAGCTGAGAGCTGAAAGGG AATTCCGAGGCCTCGGTGACTGCCTGGTTAAGATCTACAAATCTGATGGGATTAAGGGCCTGTACCAAGGCTTTA ACGTGTCTGTGCAGGGTATTATCATCTACCGAGCCGCCTACTTCGGTATCTATGACACTGCAAAGGGAATGCTTC CGGATCCCAAGAACACTCACATCGTCATCAGCTGGATGATCGCACAGACTGTCACTGCTGTTGCCGGGTTGACTT CCTATCCATTTGACACCGTTCGCCGCCGCATGATGATGCAGTCAGGGCGCAAAGGAACTGACATCATGTACACAG  ${\tt GCACGCTTGACTGCTGGCGGAAGATTGCTCGTGATGAAGGAGGCAAAGCTTTTTTCAAGGGTGCATGGTCCAATG}$  $\tt TTCTCAGAGGCATGGGTGCTTTTTGTGCTTGTATGATGAAATCAAGAAGTACACA\underline{TAA}_{G}TTATTTCCT$ AGGATTTTTCCCCCTGTGAACAGGCATGTTGTATTCTATAACACAATCTTGAGCATTCTTGACAGACTCCTGGCT GTCAGTTTCTCAGTGGCAACTACTTTACTGGTTGAAAATGGGAAGCAATAATATTCATCTGACCAGTTTTCCTCT TTGGAGAAATAAAAATATCTAAAAT

## 77/2682 FIGURE 72

MTDAAVSFAKDFLAGGVAAAISKTAVAPIERVKLLLQVQHASKQITADKQYKGIIDCVVRIPKEQGVLSFWRGNL
ANVIRYFPTQALNFAFKDKYKQIFLGGVDKRTQFWRYFAGNLASGGAAGATSLCFVYPLDFARTRLAADVGKAGA
EREFRGLGDCLVKIYKSDGIKGLYQGFNVSVQGIIIYRAAYFGIYDTAKGMLPDPKNTHIVISWMIAQTVTAVAG
LTSYPFDTVRRRMMMQSGRKGTDIMYTGTLDCWRKIARDEGGKAFFKGAWSNVLRGMGGAFVLVLYDEIKKYT

AGTATGTGTGGGGAATTCATGTGGAGGTCAGAGTGGAAGCAGGTGTGAGAGGGTCCAGCAGAAGGAAACAT **GGCTGCCAAAGTGTTTGAGTCCATTGGCAAGTTTGGCCTGGCCTTAGCTGTTGCAGGAGGCGTGGTGAACTCTGC** CTTATATATGTGGATGCTGGCCACAGAGCTGTCATCTTTGACCGATTCCGTGGAGTGCAGGACATTGTGGTAGG GGAAGGGACTCATTTTCTCATCCCGTGGGTACAGAAACCAATTATCTTTGACTGCCGTTCTCGACCACGTAATGT GCCAGTCATCACTGGTAGCAAAGATTTACAGAATGTCAACATCACACTGCGCATCCTCTTCCGGCCTGTCGCCAG CCAGCTTCCTCGCATCTTCACCAGCATCGGAGAGGACTATGATGAGCGTGTGCTGCCGTCCATCACAACTGAGAT CGACGACCTTACAGAGCGAGCCGCCACCTTTGGGCTCATCCTGGATGACGTGTCCTTGACACATCTGACCTTCGG GAAGGAGTTCACAGAAGCGGTGGAAGCCAAACAGGTGGCTCAGCAGGAAGCAGAGAGGGCCCAGATTTGTGGTGGA AAAGGCTGAGCAACAGAAAAAGGCGGCCATCATCTCTGCTGAGGGCGACTCCAAGGCAGCTGAGCTGATTGCCAA CTCACTGGCCACTGCAGGGGATGGCCTGATCGAGCTGCGCAAGCTGGAAGCTGCAGAGGACATCGCGTACCAGCT CTCACGCTCTCGGAACATCACCTACCTGCCAGCGGGGCAGTCCGTGCTCCTCCAGCTGCCCCAG**TGA**GGGCCCAC CCAGAAATCACTGTGAAATTTCATGATTGGCTTAAAGTGAAGGAAATAAAGGTAAAATCACTTCAGATCTCTAAT CAAGTGCCTATGCAAACCAGCTTTAGGTCCCAATTCGGGGCCTGCTGGAGTTCCGGCCTGGGCACCAGCATTTGG CAGCACGCAGGCGGGCAGTATGTGATGGACTGGGGAGCACAGGTGTCTGCCTAGATCCACGTGTGGCCTCCGTC CTGGACCGAGATGTGAGTCCTGTTGAAGACTTCCTCTCTCACCCCCCACCTTGGTCCCTCTCAGATACCCAGTGGA GTCAATAAATGACACCCAGACCTTCC

## 79/2682 FIGURE 74

MAAKVFESIGKFGLALAVAGGVVNSALYNVDAGHRAVIFDRFRGVQDIVVGEGTHFLIPWVQKPIIFDCRSRPRN VPVITGSKDLQNVNITLRILFRPVASQLPRIFTSIGEDYDERVLPSITTEILKSVVARFDAGELITQRELVSRQV SDDLTERAATFGLILDDVSLTHLTFGKEFTEAVEAKQVAQQEAERARFVVEKAEQQKKAAIISAEGDSKAAELIA NSLATAGDGLIELRKLEAAEDIAYQLSRSRNITYLPAGQSVLLQLPQ

 ${\tt GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCC{\tt ATG}{\tt ATAAGTGCCAGCCGAGCTGCA}}$ GCAGCCCGTCTCGTGGGCGCCGCAGCCTCCCGGGGCCCTACGGCCGCCCCCCCACCAGGATAGCTGGAATGGCCTT AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG GCTGTCACCAACCCAAACAATACATTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGCTGAAGTA CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG AAATTGTATTCTCCGAGTCAGATTGGAGCATTTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC **AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACTTTTGATATTTCTATCCTGGAAATTCAG** AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA  $\tt CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA$ ATGGATTCTTCTGGACCCAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTCAGCAGACTGTACAGGATCTTTTTGGCAGAGCCCCAAGT AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTTGTTGGCCGGCGATGTCACG GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAAACTTATT AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGAA ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGGACAGTTTACTTTGATTGGAATT CCACCAGCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT AGACAGGCAGCATCCTCTTCAGCAGGCATCATTGAAGCTGTTCGAAATGGCATACAAAAAGATGGCATCTGAG  $\tt CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAG\underline{TAA}{T}AATAGCAG$ AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCATTTTTCAGC TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGGAT GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAAACTTAGCTATTTATATTA GGTACAGCTATTAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAA

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSAKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFEMAYKKMASEREGSGSSGTGEQKEDQK

 ${\tt GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCC} \underline{{\tt ATG}} {\tt ATAAGTGCCAGCCGAGCTGCA}$ GCAGCCGTCTCGTGGGCGCCGCAGCCTCCCGGGGCCCTACGGCCGCCACCAGGATAGCTGGAATGGCCTT AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG AAATTGTATTCTCCGAGTCAGATTGGAGCATTTGTGTTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCTATGGTCTAGAC AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACTTTTGATATTTCTATCCTGGAAATTCAG AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA  $\tt CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA$ ATGGATTCTTCTGGACCCAAGCATTTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTCAGCAGACTGTACAGGATCTTTTTGGCAGAGCCCCAAGT AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTGTTGGCCGGCGATGTCACG GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAAACTCTAGGAGGTGTCTTTACCAAACTTATT AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGAA ATTAAAGTGTGTCAGGGTGAAAGAGAGATGGCTGGAGACAACAAACTCCTTGGACAGTTTACTTTGATTGGAATT CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT ATGGCTGAAGGAATCATTCACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC AACAAGCTGAAAGAAGAAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAACAGGAGAAAATATT AGACAGCAGCATCCTCTCTCAGCAGGCATCATTGAAGCTGTTCGAAATGGCATACAAAAAGATGGCATCTGAG CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAG**TAA**TAATAGCAG **AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC** AGTCTTTTTACTGTGTTTTTTGCAGTATTCTATATATATTTCCTTAATTTGTAAATTTAGTGACCATTAGCTAGT GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTCACAATATTCTATGTCCCTAGCCTGTCATTTTTCAGC TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAAACTTAGCTATTTATATTA GGTACAGCTATTAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTCTAGCTACCTT AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAAA

## 83/2682 FIGURE 78

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV
SKSDIGEVILVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID
ANGIVHVSAKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFEMAYKKMASEREGSGSSGTGEQKEDQK

GTGGTGGGACTCGCGTCGCGGCCGCGGAGACGTGAAGCTCTCGAGGCTCCTCCCGCTGCGGGTCGGCGCTCGCCC TCGCTCTCCTCGCCCTCCGCCCCGGCCCCGCCCCCCCCATGGAGAAGACTGAGCTGATCCAGAAGGCCA AGCTGGCCGAGCAGGCCGAGCGTACGACGACATGGCCACCTGCATGAAGGCAGTGACCGAGCAGGCGCCGAGC TGTCCAACGAGGAGCGCAACCTGCTCTCCGTGGCCTACAAGAACGTGGTCGGGGGCCGCAGGTCCGCCTGGAGGG TCATCTCTAGCATCGAGCAGAAGACCGACACCTCCGACAAGAAGTTGCAGCTGATTAAGGACTATCGGGAGAAAG TGGAGTCCGAGCTGAGATCCATCTGCACCACGGTGCTGGAATTGTTGGATAAATATTTAATAGCCAATGCAACTA ATCCAGAGAGTAAGGTCTTCTATCTGAAAATGAAGGGTGATTACTTCCGGTACCTTGCTGAAGTTGCGTGTGGTG ATGATCGAAAACGATAGATAATTCCCAAGGAGCTTACCAAGAGGCATTTGATATAAGCAAGAAGAGATGC AACCCACACCCAATCCGCCTGGGGCTTGCTCTTAACTTTTCTGTATTTTACTATGAGATTCTTAATAACCCAG ACAAAGACAGCACCTCATCATGCAGTTGCTTAGAGACAACCTAACACTTTGGACATCAGACAGTGCAGGAGAAG  ${\tt AATGTGATGCGGCAGAAGGGGCTGAAAACT AAATCCATACAGGGTGTCATCCTTCTTTCCTTCAAGAAACCTTTT}$ TACACATCTCCATTCCTTATTCCACTTGGATTTCCTATAGCAAAGAAACCCATTCATGTGTATGGAATCAACTGT TTATAGTCTTTTCACACTGCAGCTTTGGGAAAACTTCATTCCTTGATTTGTGTTTTGTCTTGGCCTTCCTGGTGTG ACTAAAAATGTATCTGGTATTTAAGTAATCTGAACCAGTTCTGCAAGTGACTGTGTTTTGTATTACTGTGAAAAT AAGAAAATGTAGTTAATTACAATTTAAAGAGTATTCCACATAACTTCTTAATTTCTACATTCCCCCCTTACTCT TCGGGGGTTTCCTTTCAGTAAGCAACTTTTCCATGCTCTTAATGTATTCCTTTTTAGTAGGAATCCGGAAGTATT AGATTGAATGGAAAAGCACTTGCCATCTCTGTCTAGGGGTCACAAATTGAAATGGCTCCTGTATCACATACGGAG GTCTTGTGTATCTGTGGCAACAGGGAGTTTCCTTATTCACTCTTTATTTGCTGCTGTTTAAGTTGCCAACCTCCC CTCCCAATAAAAATTCACTTACACCTCCTGCCTTTGTAGTTCTGGTATTCACTTTACTATGTGATAGAAGTAGCA TGTTGCTGCCAGAATACAAGCATTGCTTTTGGCAAATTAAAGTGCATGTCATTTCTTAATACACTAGAAAGGGGA **AATAAATTAAAGTACACAAGTCCAAGTCTAAAACTTTAGTACTTTTCCATGCAGATTTGTGCACATGTGAGAGGG** TGTCCAGTTTGTCTAGTGATTGTTATTTAGAGAGTTGGACCACTATTGTGTGTTGCTAATCATTGACTGTAGTCC CAAAAAAGCCTTGTGAAAATGTTATGCCCTATGTAACAGCAGAGTAACATAAAATAAAAGTACATTTTATAAACC ATTTACTATGGCTTTGTAACAATTGCATACCCATATTTTAAGGGACAGGTGAATTTACTACTTTCTAAAGTTTAT TGATACTTCCCTTTTATGTAAAATGTAGTAGTGATACCTATATTTCCACATTGTGCATTGTGACACACTTGTCTA GGGATGCCTGGAAGTGTATAAAATTGGACTGCATTTCTTAGAGTGTTTTACTATAGATCAGTCTCATGGGCCATC TCTTCCTCAGATGTAAATGATATCTGGTTAAGTGTTATATGGAATAAAGTGGACATTTTAAAACTA

## 85/2682 FIGURE 80

MEKTELIQKAKLAEQAERYDDMATCMKAVTEQGAELSNEERNLLSVAYKNVVGGRRSAWRVISSIEQKTDTSDKK LQLIKDYREKVESELRSICTTVLELLDKYLIANATNPESKVFYLKMKGDYFRYLAEVACGDDRKQTIDNSQGAYQ EAFDISKKEMQPTHPIRLGLALNFSVFYYEILNNPELACTLAKTAFDEAIAELDTLNEDSYKDSTLIMQLLRDNL TLWTSDSAGEECDAAEGAEN

AGCGCACGTCGGCAGTCGGCTCCCTCGTTGACCGAATCACCGACCTCTCTCCCCAGCTGTATTTCCAAAAATGTCG CTTTCTAACAAGCTGACGCTGGACAAGCTGGACGTTAAAGGGAAGCGGGTCGTTATGAGAGTCGACTTCAATGTT CCTATGAAGAACAACCAGATAACAACCAGAGGATTAAGGCTGCTGTCCCAAGCATCAAATTCTGCTTGGAC TTAGAGCCAGTTGCTGTAGAACTCAAATCTCTGCTGGGCAAGGATGTTCTGTTCTTGAAGGACTGTGTAGGCCCA GAAGTGGAGAAAGCCTGTGCCAACCCAGCTGCTGGTCTGTCATCCTGCTGGAGAACCTCCGCTTTCATGTGGAG TCACTTTCCAAGCTAGGGGATGTCTATGTCAATGATGCTTTTGGCACTGCTCACAGAGCCCACAGCTCCATGGTA GGAGTCAATCTGCCACAGAAGGCTGGTGGGTTTTTGATGAAGAAGGAGCTGAACTACTTTGCAAAGGCCTTGGAG AGCCCAGAGCGACCCTTCCTGGCCATCCTGGGCGGAGCTAAAGTTGCAGACAAGATCCAGCTCATCAATAATATG ATTGGCACTTCTCTGTTTGATGAAGAGGGAGCCAAGATTGTCAAAGACCTAATGTCCAAAGCTGAGAAGAATGGT GTGAAGATTACCTTGCCTGTTGACTTTGTCACTGCTGACAAGTTTGATGAGAATGCCAAGACTGGCCAAGCCACT GTGGCTTCTGGCATACCTGCTGGCTGGATGGGCTTGGACTGTGGTCCTGAAAGCAGCAAGAAGTATGCTGAGGCT GTCACTCGGGCTAAGCAGATTGTGTGGAATGGTCCTGTGGGGGTATTTGAATGGGAAGCTTTTGCCCGGGGAACC AAAGCTCTCATGGATGAGGTGGAAAGCCACTTCTAGGGGCTGCATCACCATCATAGGTGGTGGAGACACTGCC ACTTGCTGTGCCAAATGGAACACGGAGGATAAAGTCAGCCATGTGAGCACTGGGGGTGGTGCCAGTTTGGAGCTC CTGGAAGGTAAAGTCCTTCCTGGGGTGGATGCTCTCAGCAATATT<u>TAG</u>TACTTTCCTGCCTTTTAGTTCCTGTGC ACAGCCCCTAAGTCAACTTAGCATTTTCTGCATCTCCACTTGGCATTAGCTAAAACCTTCCATGTCAAGATTCAG CTAGTGGCCAAGAGATGCAGTGCCAGGAACCCTTAAACAGTTGCACAGCATCTCAGCTCATCTTCACTGCACCCT GGATTTGCATACATTCTTCAAGATCCCATTTGAATTTTTTAGTGACTAAACCATTGTGCATTCTAGAGTGCATAT ATTTATATTTTGCCTGTTAAAAAGAAAGTGAGCAGTGTTAGCTTAGTTCTCTTTTGATGTAGGTTATTATGATTA GGGTGAGAATAGAATCTTGAGGAACGGATCAGATGTCTATATTGCTGAATGCAAGAAGTGGGGCAGCAGCAGTGG AGAGATGGGACAATTAGATAAATGTCCATTCTTTATCAAGGGCCTACTTTATGGCAGACATTGTGCTAGTGCTTT TATTCTAACTTTATTTTTATCAGTTACACATGATCATAATTTAAAAAGTCAAGGCTTATAACAAAAAAGCCCCA GCCCATTCCTCCCATTCAAGATTCCCACTCCCCAGAGGTGACCACTTTCAACTCTTGAGTTTTTCAGGTATATAC CATGGAGGAGGCTCTGTTCCACATATATTTCCACTTCTTCATTCTCTCGGTATAGTTTTGTCACAATTATAGAT TAGATCAAAAGTCTACATAACTAATACAGCTGAGCTATGTAGTATGCTATGATTAAATTTACTTATGTAAAAAAA **АААААААААА**А

## 87/2682 FIGURE 82

MSLSNKLTLDKLDVKGKRVVMRVDFNVPMKNNQITNNQRIKAAVPSIKFCLDNGAKSVVLMSHLGRPDGVPMPDK YSLEPVAVELKSLLGKDVLFLKDCVGPEVEKACANPAAGSVILLENLRFHVEEEGKGKDASGNKVKAEPAKIEAF RASLSKLGDVYVNDAFGTAHRAHSSMVGVNLPQKAGGFLMKKELNYFAKALESPERPFLAILGGAKVADKIQLIN NMLDKVNEMIIGGGMAFTFLKVLNNMEIGTSLFDEEGAKIVKDLMSKAEKNGVKITLPVDFVTADKFDENAKTGQ ATVASGIPAGWMGLDCGPESSKKYAEAVTRAKQIVWNGPVGVFEWEAFARGTKALMDEVVKATSRGCITIIGGGD TATCCAKWNTEDKVSHVSTGGGASLELLEGKVLPGVDALSNI

CGCCCTGCTCTCGCGCCGCGCTCGGCTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG  ${\tt TCGGACGGGCGCGGAGGCCTTCTGGAAGGAACGCCGCGATGGCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA}$  $\verb|CTTGTATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG|\\$ AAGTATGTAGCCACCTTGGGTGTTGAGGTTCATCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGTGTGCCATC ATAATGTTTGATGTAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC TTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACTTTGAAAAGCCCTTCCTC TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCGGATGAG  ${\tt GATGATGACCTG} \underline{{\tt TGA}} {\tt GAATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC}$ AGCGGTGCAGCGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT TTGGACGCAGTTGATTCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAATCT TGTTTGTTACTGTCATTCCCATTCCTTTTCTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA ACTCATCCCTTGTTTATAAATAGCATTTGGAAACCACTAAAGTAGGGAAGTTTTATGCCATGTTAATATTTGAAT TGCCTTGCTTTATCACTTAATTTGAAATCTATTGGGTTAATTTCTCCCTATGTTTATTTTTGTACATTTGAGCC ATGTCACACAAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGGTTACATGGTGTAAATATTAGT AATCTGTGACCTGTCAGAATAAAATGTGGTTTGTACATATCAAATAGATATTTTAAGGGTAATATTTTCTTTTA TGGCAAAAGTAATCATGTTTTAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT **AAGCCG** 

## 89/2682 FIGURE 84

 $\label{thm:logical} $$ MAAQGEPQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL RDGYYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAAQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAAQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPQYEHDLEVAQTTALPDEDDDL $$ MASNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVMDPALAPPALAPPEVVMDPALAPPEVVMDPALAPPEVVMDPALAPPALAPPEVVMDPALAPP$ 

CGCTAGCCTGCGGAGCCCGTCCGTGCTGTTCTGCGGCAAGGCCTTTCCCAGTGTCCCCACGCGGAAGGCAACTGC CTGAAAGGCGCGCGCCCACCCCCAGAGCTGAGGAAGCCGGCGCCAGTTCGCGGGGCTCCGGGCCCACTCA GCACCTCGCCCGACACGCTGAGGCGCGTCTTCGAGAAGTACAGGCGCGTCGGCGACGTGTACATCCCGCGGGATC GCTACACCAAGGAGTCCCGCGGCTTCGCCTTCGTTCGCTTTCACGACAAGCGCGACGCTGAGGACGCTATGGATG  $\verb|CCATGGACGGGGCCGTGCTGGACGGCCGGGGTGCAAATGGCGCGCTACGGCCCCCCGGACTCAC| \\$ ACCACAGCCGCGGGGACCGCCACCCCGCAGGTACGGGGCGGTGGCTACGGACGCCGGAGCCGCAGCCCTAGGC GGCGTCGCCGCAGCCGATCCCGGAGTCGGAGCCGTTCCAGGTCTCGCAGCCGATCTCGCTACAGCCGCTCGAAGT CTCGGTCCCGCACTCGTTCTCGATCTCGGTCGACCTCCAAGTCCAGATCCGCACGAAGGTCCAAGTCCAAGTCCT CGTCGGTCTCCAGATCTCGTTCGCGGTCCAGGTCTCGGTCCAGGAGTCCTCCCCCAGTGTCCAAGAGGG ATGATGTATCGGCAAGCAGTGTAAACGGAGGACTTGGGGAAAAAGGACCACATAGTCCATCGAAGAAGAAGTCCTT GGAACAAGCAACTGGCTATTGAAAAGGTTATTTTGTAACATTTGTCTAACTTTTTACTTGTTTAAGCTTTGCCTC AGTTGGCAAACTTCATTTTATGTGCCATTTTGTTGCTGTTATTCAAATTTCTTGTAATTTAGTGAGGTGAACGAC GAAATTAAACAGATTGGTAACCTAATTTGTGGCCTCCTGACTTTTAAGGAAAACGTGTGCAGCCATTACACACAG CCTAAAGCTGTCAAGAGATTGACTCGGCATTCGTTCATTCCTTAAAATTAAAAACCTACAAAAGTTGGTGTAAAT TTGTATATGTTATTTACCTTCAGATCTAAATGGTAATCTGAACCCAAATTTGTATAAAGACTTTTCAGGTGAAAA GCAGTTGTGTAGCAGTTGAGTAATGCTGGTTAGCTGTTAAGGTGGCGTGTTGCAGTGCAGAGTGCTTGGCTGTTT CCTGTTTTCTCCCGATTGCTCCTGTGTAAAGATGCCTTGTCGTGCAGAAACAAATGGCTGTCCAGTTTATTAAAA ATGATAAATACACCTTTTTTTCCCTCTTCCCCCTAAAAATGGTAAATCTGATCATATCTACATGTATGAACTTAA CATGGAAAATGTTAAGGAAGCAAATGGTTGTAACTTTGTAAGTACTTATAACATGGTGTATCTTTTTTGCTTATGA AAAA

# 91/2682 FIGURE 86

MSYGRPPPDVEGMTSLKVDNLTYRTSPDTLRRVFEKYRRVGDVYIPRDRYTKESRGFAFVRFHDKRDAEDAMDAM DGAVLDGRELRVQMARYGRPPDSHHSRRGPPPRRYGGGGYGRRSRSPRRRRSRSRSRSRSRSRSRSRSRSKSR SRTRSRSRSTSKSRSARRSKSKSSSVSRSRSRSRSRSRSRSRSPPPVSKRESKSRSKSPPKSPEEEGAVSS

GAGAGGAGACACCGCCGCAGTTGCCGGTACATCGGGGATTTCTGGCTCTTTCCTCTTCGCCTTAAATTCGGGTGT CTTTTATGAATAATCAAAAGCAGCAAAAGCCAACGCTATCAGGCCAGCGTTTTAAAACTAGAAAAAGAGATGAAA AAGAGAGGTTTGACCCTACTCAGTTTCAAGACTGTATTATTCAAGGCTTAACTGAAACCGGTACTGATTTGGAAG CAGTAGCTAAGTTTCTTGATGCTTCTGGAGCAAAACTTGATTACCGTCGATATGCAGAAACACTCTTTGACATTC TGGTGGCTGGTGGAATGCTGGCCCCAGGTGGTACACTGGCAGATGACATGATGCGTACAGATGTCTGCGTGTTTG CAGCCCAAGAAGATCTAGAGACCATGCAAGCATTTGCTCAGGTTTTTAACAAGTTAATCAGGCGCTACAAATACC TGGAGAAAGGTTTTGAAGATGAAGTAAAAAAGCTGCTGCTGTTCTTGAAGGGTTTTTCAGAGTCGGAGAGGAACA AGCTAGCTATGTTGACTGGTGTTCTTCTGGCTAATGGAACACTTAATGCATCCATTCTTAATAGCCTTTATAATG AAAATTTGGTTAAAGAAGGAGTTTCAGCAGCTTTTGCTGTGAAGCTCTTTAAATCATGGATAAATGAAAAAGATA TCAATGCAGTAGCTGCAAGTCTTCGGAAAGTCAGCATGGATAACAGACTGATGGAACTCTTTCCTGCCAATAAGC AAACCATCGGAGCTCGTAAGGAGCTCCAGAAAGAACTTCAAGAACAGATGTCCCGTGGTGATCCATTTAAGGATA TAATTTTATATGTCAAGGAGAGATGAAAAAAAACAACCCAGAGCCAGTTGTCATCGGAATAGTCTGGTCAA GTGTAATGAGCACTGTGGAATGGAACAAAAAAGGGGGGCTTGTAGCAGGCAAGCCATCAAGCACTTGAAGCAAT ACAGCCCTCTACTTGCTGCCTTTACTACTCAAGGTCAGTCTGAGCTGACTCTGTTACTGAAGATTCAGGAGTATT GCTATGACAACATTCATTCATGAAAGCCTTCCAGAAAATAGTGGTGCTTTTTTATAAAGCTGAAGTCCTGAGCG AGGAGCCCATTTTGAAGTGGTATAAAGATGCACATGTTGCAAAGGGGAAGAGTGTTTTCCTTGAGCAAATGAAAA AGTTTGTAGAATGGCTCAAAAATGCTGAAGAAGAATCTGAATCTGAAGCTGAAGAAGGTGAC**TGA**ATTTTGAAAC TACACCCTCAGTAAAGCAAACAGGAGTTGTAGATAAAATGTCATGTCTCATGTGTCCTGGTTCTTACATCTTCCT ACCTCCCTGTATCAAGCATGATATAAGGGCTTTCATGGCAAATTTTATTTTAACTGTTTCTATGGTTGCTGGAAA TGTTGGGTTTAGTTTCTAAAACCATGTTTTAAGTAGCTACAGGAGCTATAGATTTGAATCTAATGTTGCATTAGT CTTTTCAGTTATCTTCTACCTCCTGTATTTTCTACTGTAATAATGTAATTTAAGGCCTTCCACAATGAACAGTTC TGTTTGCAAATTAAACTGGAAAAGTATCCAGAGTCTCAAAAGGCAATGATTTGTGAGATAATATGGCATGCCCGG AGCCCTGCTCATCAATGAAAAACCCATATGTAATAATCGAATTCATTTAACATGAATCTTGAGTACGTGGACCAT TGCTTGCATGTTAACTTTTTGTTTTGTTTTGTTTTTGTTTTTGCATTTTTAACTCCAGATATCCTAAAGCTC AATTGTTTGGTCTCTGGTTTTCATCCTTAGAGAAGCCATGGAGAACAGACTTGAAAAGTTTAGGAAATCATAATG TGGCAGAGGTGGTGGGAAGAAGATGAGCTTTTTCCCCTTGAGAAACTTCTGCATTTAGTTTCTATCTTTCC AGGCAAAACAAATGGGTATTCTTTTCATACAACCATTTTCAAATGAACCTTAGAAAAGTCTTAACATTTAAGGTA TTTTATGCACAGAATACACTTAGATTGATAGGAAAGAACTCGTAATGGAGTTTGAGTAAAGAAAATGACTGATGT ACTAAACCCAGTAAAAATTGTTGAAAATGTTAAAGGTCAGCATGTTCTAATTGGGAATCTAGATATAGCTTAGAT TTCCTATTGGCTTAGAGTATTTGCTATAACAAATGAAGTGCAATGACAATTATATATTCCTACTCGGTCATACTG GACTGGCTTCGTTCTCTTAATATACTCAGTAATGACTCAAGCCTCTGGCTATTAACATACCCTAGTTGCCGTTTT CTTTTCTTGCTGCTACCCATCTATGTATGTAGTCATTGGGGGGGAAAATGTAGCCACATTTTTTATGGGAAGACTT TGTGTTAAAAGTGAACATTTTGAAGGTTTTTAACTGGTGAAACTAGCCTGGAATAATGCCACCAGAGACTGAGTG GAAATCGCCCCTTTTGAAGGTGCCATTCTTATGAGCCAAAAGTTTGTCATTTAAAAGTTCATTTTGAGGGAATAA CÁTGTAATATATTTGAAATAAAGGTATAGTAACCTTAAAAAGAACATTATAACTGATTGTTGTGAATGGGGTGA ATTTGTTAAAATGAGTAACTTTGATAAAGTTTTTCATGCACAGGCAAAATGTATTCACTAGATTTCTACGTAGTG 

## 93/2682 FIGURE 88

MNNQKQQKPTLSGQRFKTRKRDEKERFDPTQFQDCIIQGLTETGTDLEAVAKFLDASGAKLDYRRYAETLFDILV AGGMLAPGGTLADDMMRTDVCVFAAQEDLETMQAFAQVFNKLIRRYKYLEKGFEDEVKKLLLFLKGFSESERNKL AMLTGVLLANGTLNASILNSLYNENLVKEGVSAAFAVKLFKSWINEKDINAVAASLRKVSMDNRLMELFPANKQS VEHFTKYFTEAGLKELSEYVRNQQTIGARKELQKELQEQMSRGDPFKDIILYVKEEMKKNNIPEPVVIGIVWSSV MSTVEWNKKEELVAEQAIKHLKQYSPLLAAFTTQGQSELTLLLKIQEYCYDNIHFMKAFQKIVVLFYKAEVLSEE PILKWYKDAHVAKGKSVFLEQMKKFVEWLKNAEEESESEAEEGD

GTCAGTCCCTCTGTAGCCGCCGCCGCCGCCGCCGCCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG GGCTCCGGCGTCTGCGCTTCCCCATGGGGCTGGCCTGCGGCGCCTTGGGCGCTCTGAGATTGTCACTGCTGTTCCA ATCTCTTAGTTTTCCATAGGAACATCAAGAAATC<u>ATG</u>AACAACTTTGGTAATGAAGAGTTTGACTGCCACTTCCT CGATGAAGGTTTTACTGCCAAGGACATTCTGGACCAGAAAATTAATGAAGTTTCTTCTTCTGATGATAAGGATGC CTTCTATGTGGCAGACCTGGGAGACATTCTAAAGAAACATCTGAGGTGGTTAAAAGCTCTCCCTCGTGTCACCCC CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCCTTGCTGCTACCGGGACAGGATTTGACTG TGCTAGCAAGACTGAAATACAGTTGGTGCAGAGTCTGGGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTG TAAACAAGTATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT GATGAAAGTTGCCAGAGCACATCCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTCCAAAGCAGTCTG TCGTCTCAGTGTGAAATTCGGTGCCACGCTCAGAACCAGCAGGCTCCTTTTGGAACGGGCGAAAGAGCTAAATAT CGATGTTGTTGGTGTCAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA TGCCCGCTGTGTTTTTGACATGGGGGCTGAGGTTGGTTTCAGCATGTATCTGCTTGATATTGGCGGTGGCTTTCC TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATCACCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGCAGTTAA TATCATTGCCAAGAAAATTGTATTAAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT TATGTATTATGTGAATGATGGCGTCTATGGATCATTTAATTGCATACTCTATGACCACGCACATGTAAAGCCCCT TCTGCAAAAGAGACCTAAACCAGATGAGAAGTATTATTCATCCAGCATATGGGGGACCAACATGTGATGGCCTCGA TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA CACTGTTGCTGCTGCCTCTACGTTCAATGGCTTCCAGAGGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTG GTCTTGTGCCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCCTGTGCTTCGGCTAGTATTAATGTG**TAG**ATAGC ACTCTGGTAGCTGTAACTGCAAGTTTAGCTTGAATTAAGGGATTTGGGGGGGACCATGTAACTTAATTACTGCTA GTTTTGAAATGTCTTTGTAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTCACACTTA TCTGTGTTCCTATGGAAACTATTTGAATATTTGTTTTATATGGATTTTTATTCACTCTTCAGACACGCTACTCAA GAGTGCCCCTCAGCTGCAACAAGCATTTGTAGCTTGTACAATGGCAGAATGGGCCAAAAGCTTAGTGTTGTGA CCTGTTTTTAAAATAAAGTATCTTGAAATAATTAGGC

## 95/2682 FIGURE 90

MNNFGNEEFDCHFLDEGFTAKDILDQKINEVSSSDDKDAFYVADLGDILKKHLRWLKALPRVTPFYAVKCNDSKA IVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVELMKVARAHPKAK LVLRIATDDSKAVCRLSVKFGATLRTSRLLLERAKELNIDVVGVSFHVGSGCTDPETFVQAISDARCVFDMGAEV GFSMYLLDIGGGFPGSEDVKLKFEEITGVINPALDKYFPSDSGVRIIAEPGRYYVASAFTLAVNIIAKKIVLKEQ TGSDDEDESSEQTFMYYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTCDGLDRIVERCDLPEM HVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMSGPAWQLMQQFQNPDFPPEVEEQDASTLPVSCAWESGMKRH RAACASASINV

CACGCTTGCCGCCGCCGCAGAAATGCTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCCAGGGTA CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT TGGGGAAGTCCCAAAGTAACAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAATACAAGAAC ATTGGAGCTAAACTTGTTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAAATCAGGAGA GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA GTTGGAAGAAAGGGTGTCATCACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAATAGGCTAAAG ATTGCTACTGGTGGTGCAGTGTTTGGAGAGAGGGGATTGACCCTGAATCTTGAAGACGTTCAGCCTCATGACTTA GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTTGGTATAGAAATT ATTAAAAGAACACTCAAAATTCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTTAACTACAGCA GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC CCATCAGTTACTGGTTTCAGTTGACAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT ATTTTGTATTTTTGAATAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGTACTGCT TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA ACCTTTGTGTAATAAAAATTTGTTTAA

## 97/2682 FIGURE 92

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIIEQGWGSPKVTK
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEKISKGANPVEIRRGVMLAVDA
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIIEGMKFDRGYIS
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIIAEDVDGEALSTLVLNRLKVGLQVVAV
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEII
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVV
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGGMGGGMF

GTTCCAAGGTTTGCGGCCCGGTCTCGGAGAAGAGGGGGAGAGTGGAGGGCCGCTGAATAAGCTTCCAAAATGATGC CCACACCAGTTATCCTATTGAAAGAGGGGACTGATAGCTCCCAAGGCATCCCCCAGCTTGTGAGTAACATCAGTG CCTGCCAGGTGATTGCTGAGGCTGTAAGAACTACCCTGGGTCCCCGTGGCATGGACAAGCTTATTGTAGATGGCA GAGGCAAAGCAACAATTTCTAATGATGGGGCCACAATTCTGAAACTTCTTGATGTTGTCCATCCTGCAGCAAAGA AGTTTCTGAAGCAGGTGAAACCCTATGTGGAGGAAGGTTTACACCCCCAGATCATCATTCGAGCTTTCCGCACAG CCACCCAGCTGGCAGTTAACAAGATCAAAGAGATTGCTGTGACCGTGAAGAAGGCAGATAAAGTGGAGCAGAGGA TGGTGGTGGATGCATGATGCTCGATGATTTGCTGCAGCTTAAAATGATTGGAATCAAGAAGGTACAGGGTG GAGCCCTCGAGGATTCTCAGCTGGTAGCTGGTGTTGCATTCAAGAAGACTTTCTCTTACGCTGGGTTTGAAATGC AACCCAAAAAGTACCACAATCCCAAGATTGCCCTTTTGAATGTCGAGCTCGAGTTGAAAGCTGAGAAAGACAATG CTGAGATAAGAGTCCACACAGTTGAGGATTATCAGGCAATTGTTGATGCTGAGTGGAACATTCTCTATGACAAGT TAGAGAAGATCCATCATTCTGGAGCCAAAGTTGTCTTGTCCAAACTCCCCATTGGGGATGTGGCCACCCAGTACT TTGCTGACAGGGACATGTTCTGTGCTGGCCGAGTACCTGAGGAGGATCTGAAGAGGACAATGATGGCCTGTGGAG GCTCAATCCAGACCAGTGTGAATGCTCTGTCAGCAGATGTGCTGGGTCGATGCCAGGTGTTTGAAGAGACCCAGA TTGGAGGCGAGAGGTACAATTTTTTTACTGGCTGCCCCAAGGCCAAGACATGCACCTTCATTCTCCGTGGCGGCG CCGAGCAGTTTATGGAGGAGACAGAGCGGTCCCTGCATGATGCCATCATGATCGTCAGGAGGGCCATCAAGAATG ATTCAGTGGTGGCTGGTGGCGGGCCATTGAGATGGAACTCTCCAAGTACCTGCGGGATTACTCAAGGACTATTC CAGGAAAACAGCAGCTGTTGATTGGGGCTTATGCCAAGGCCTTGGAGATTATCCCACGCCAGCTGTGTGACAATG CTGGCTTTGATGCCACAAACATCTCAACAAGCTGCGGGCTCGGCATGCCCAGGGGGGTACATGGTATGGAGTAG ACATCAACAACGAGGACATTGCTGACAACTTTGAAGCTTTCGTGTGGGAGCCAGCTATGGTGCGGATCAATGCGC TGACAGCAGCCTCTGAGGCTGCCTGATCGTGTCTGTAGATGAAACCATCAAGAACCCCCGCTCGACTGTGG 

## 99/2682 FIGURE 94

MMPTPVILLKEGTDSSQGIPQLVSNISACQVIAEAVRTTLGPRGMDKLIVDGRGKATISNDGATILKLLDVVHPA
AKTLVDIAKSQDAEVGDGTTSVTLLAAEFLKQVKPYVEEGLHPQIIIRAFRTATQLAVNKIKEIAVTVKKADKVE
QRKLLEKCAMTALSSKLISQQKAFFAKMVVDAVMMLDDLLQLKMIGIKKVQGGALEDSQLVAGVAFKKTFSYAGF
EMQPKKYHNPKIALLNVELELKAEKDNAEIRVHTVEDYQAIVDAEWNILYDKLEKIHHSGAKVVLSKLPIGDVAT
QYFADRDMFCAGRVPEEDLKRTMMACGGSIQTSVNALSADVLGRCQVFEETQIGGERYNFFTGCPKAKTCTFILR
GGAEQFMEETERSLHDAIMIVRRAIKNDSVVAGGGAIEMELSKYLRDYSRTIPGKQQLLIGAYAKALEIIPRQLC
DNAGFDATNILNKLRARHAQGGTWYGVDINNEDIADNFEAFVWEPAMVRINALTAASEAACLIVSVDETIKNPRS
TVDAPTAAGRGRGRGRPH

## 100/2682 FIGURE 95

# 101/2682 FIGURE 96

 $\label{thm:match} $$ \mathbf{MYEQLKGEWNRKSPNLSKCGEELGRLKLVLLELNFLPTTGTKLTKQQLILARDILEIGAQWSILRKDIPSFERYM } $$ \mathbf{AQLKCYYFDYKEQLPESAYMHQLLGLNLLFLLSQNRVAEFHTELERLPAKDIQTNVYIKHPVSLEQYLMEGSYNK } $$ \mathbf{VFLAKGNIPAESYTFFIDILLDTIRDEIAGCIEKAYEKILFTEATRILFFNTPKKMTDYAKKRGWVLGPNNYYSF } $$ \mathbf{ASQQQKPEDTTIPSTELAKQVIEYARQLEMIV} $$$ 

GGCACGAGG<u>ATG</u>GAGGAGGGAGGCCGGGACAAGGCGCCGGTGCAGCCCCAGCAGTCTCCAGCGGCGCCCCCGGC GGCACGGACGAGAAGCCGAGCGGCAAGGAGCGGCGGGATGCCGGGGACAAGGACAAGAACAGGAGCTGTCTGAA GAGGATAAACAGCTTCAAGATGAACTGGAGATGCTCGTGGAACGACTAGGGGAGAAGGATACATCCCTGTATCGA CCAGCGCTGGAGGAATTGCGAAGGCAGATTCGTTCTTCTACAACTTCCATGACTTCAGTGCCCAAGCCTCTCAAA TTTCTGCGTCCACACTATGGCAAACTGAAGGAAATCTATGAGAACATGGCCCCTGGGGAGAATAAGCGTTTTGCT GCTGACATCATCTCCGTTTTGGCCATGACCATGAGTGGGGAGCGTGAGTGCCTCAAGTATCGGCTAGTGGGCTCC CAGGAGGAATTGGCATCATGGGGTCATGAGTATGTCAGGCATCTGGCAGGAGAAGTGGCTAAGGAGTGGCAGGAG CTGGATGACGCAGAGAAGGTCCAGCGGGAGCCTCTGCTCACTCTGGTGAAGGAAATCGTCCCCTATAACATGGCC CACAATGCAGAGCATGAGGCTTGCGACCTGCTTATGGAAATTGAGCAGGTGGACATGCTGGAGAAGGACATTGAT GAAAATGCATATGCAAAGGTCTGCCTTTATCTCACCAGTTGTGTGAATTACGTGCCTGAGCCTGAGAACTCAGCC CTACTGCGTTGTGCCCTGGGTGTGTTCCGAAAGTTTAGCCGCTTCCCTGAAGCTCTGAGATTGGCATTGATGCTC AATGACATGGAGTTGGTAGAAGACATCTTCACCTCCTGCAAGGATGTGGTAGTACAGAAACAGATGGCATTCATG CTAGGCCGGCATGGGGTGTTCCTGGAGCTGAGTGAAGATGTCGAGGAGTATGAGGACCTGACAGAGATCATGTCC AATGTACAGCTCAACAGCAACTTCTTGGCCTTAGCTCGGGAGCTGGACATCATGGAGCCCAAGGTGCCTGATGAC ATCTACAAAACCCACCTAGAGAACAACAGGTTTGGGGGCCAGTGGCTCTCAGGTGGACTCTGCCCGCATGAACCTG GCCTCCTCTTTTGTGAATGGCTTTGTGAATGCAGCTTTTGGCCAAGACAAGCTGCTAACAGATGATGGCAACAAA TGGCTTTACAAGAACAAGGACCACGGAATGTTGAGTGCAGCTGCATCTCTTGGGATGATTCTGCTGTGGGATGTG GATGGTGGCCTCACCCAGATTGACAAGTACCTGTACTCCTCTGAGGACTACATTAAGTCAGGAGCTCTTCTTGCC TGTGGCATAGTGAACTCTGGGGTCCGGAATGAGTGTGACCCTGCTCTGGCACTGCTCTCAGACTATGTTCTCCAC AACAGCAACACCATGAGACTTGGTTCCATCTTTGGGCTAGGCTTGGCTTATGCTGGCTCAAATCGTGAAGATGTC CTAACACTGCTGCCTGTGATGGGAGATTCAAAGTCCAGCATGGAGGTGGCAGGTGTCACAGCTTTAGCCTGT GGAATGATAGCAGTAGGGTCCTGCAATGGAGATGTAACTTCCACTATCCTTCAGACCATCATGGAGAAGTCAGAG ACTGAGCTCAAGGATACTTATGCTCGTTGGCTTCCTCTTGGACTGGGTCTCAACCACCTGGGGAAGGGTGAGGCC ATCGAGGCAATCCTGGCTGCACTGGAGGTTGTGTCAGAGCCATTCCGCAGTTTTGCCAACACACTGGTGGATGTG TGTGCATATGCAGGCTCTGGGAATGTGCTGAAGGTGCAGCAGCTGCTCCACATTTGTAGCGAACACTTTGACTCC GCACATCAGGGAGTGGCTGTTCTGGGGGATTGCCCTTATTGCTATGGGGGAGAGATTGGTGCAGAGATGGCATTA CGAACCTTTGGCCACTTGCTGAGATATGGGGAGCCTACACTCCGGAGGGCTGTACCTTTAGCACTGGCCCTCATC TCTGTTTCAAATCCACGACTCAACATCCTGGATACCCTAAGCAAATTCTCTCATGATGCTGATCCAGAAGTTTCC TATTACTCCATTTTTGCCATGGGCATGGTGGGCAGTGGTACCAATAATGCCCGTCTGGCTGCAATGCTGCGCCAG TTAGCTCAATATCATGCCAAGGACCCAAACAACCTCTTCATGGTGCGCTTGGCACAGGGCCTGACACATTTAGGG AAGGGCACCCTTACCCTCTGCCCCTACCACAGCGACCGGCAGCTTATGAGCCAGGTGGCCGTGGCTGGACTGCTC ACTGTGCTTGTCTCTTTCCTGGATGTTCGAAACATTATTCTAGGCAAATCACACTATGTATTGTATGGGCTGGTG CAGGCAGTGGATGTGGTGGGCCAGGCTGGCAAGCCGAAGACTATCACAGGGTTCCAGACGCATACAACCCCAGTG TTGTTGGCCCACGGGGAACGGGCAGAATTGGCCACTGAGGAGTTTCTTCCTGTTACCCCCATTCTGGAAGGTTTT GTTATCCTTCGGAAGAACCCCAATTATGATCTC<u>TAA</u>GTGACCACCAGGGGCTCTGAACTGCAGCTGATGTTATCA GCAGGCCATGCATCCTGCCGAAGGGTGGACACGGCTGCAGACTTCTGGGGGGAATTGTCGCCTCCTGCTCTTTT 

#### 103/2682 FIGURE 98

MEEGGRDKAPVQPQQSPAAAPGGTDEKPSGKERRDAGDKDKEQELSEEDKQLQDELEMLVERLGEKDTSLYRPAL
EELRRQIRSSTTSMTSVPKPLKFLRPHYGKLKEIYENMAPGENKRFAADIISVLAMTMSGERECLKYRLVGSQEE
LASWGHEYVRHLAGEVAKEWQELDDAEKVQREPLLTLVKEIVPYNMAHNAEHEACDLLMEIEQVDMLEKDIDENA
YAKVCLYLTSCVNYVPEPENSALLRCALGVFRKFSRFPEALRLALMLNDMELVEDIFTSCKDVVVQKQMAFMLGR
HGVFLELSEDVEEYEDLTEIMSNVQLNSNFLALARELDIMEPKVPDDIYKTHLENNRFGGSGSQVDSARMNLASS
FVNGFVNAAFGQDKLLTDDGNKWLYKNKDHGMLSAAASLGMILLWDVDGGLTQIDKYLYSSEDYIKSGALLACGI
VNSGVRNECDPALALLSDYVLHNSNTMRLGSIFGLGLAYAGSNREDVLTLLLPVMGDSKSSMEVAGVTALACGMI
AVGSCNGDVTSTILQTIMEKSETELKDTYARWLPLGLGLNHLGKGEAIEAILAALEVVSEPFRSFANTLVDVCAY
AGSGNVLKVQQLLHICSEHFDSKEKEEDKDKKEKKDKDKKEAPADMGAHQGVAVLGIALIAMGEEIGAEMALRTF
GHLLRYGEPTLRRAVPLALALISVSNPRLNILDTLSKFSHDADPEVSYYSIFAMGMVGSGTNNARLAAMLRQLAQ
YHAKDPNNLFMVRLAQGLTHLGKGTLTLCPYHSDRQLMSQVAVAGLLTVLVSFLDVRNIILGKSHYVLYGLVAAM
QPRMLVTFDEELRPLPVSVRVGQAVDVVGQAGKPKTITGFQTHTTPVLLAHGERAELATEEFLPVTPILEGFVIL

#### 104/2682 FIGURE 99A

TATACTTCGCTACTTGGCTAGAGTTGCAACTACAGCTGGGTTATATGGCTCTAATCTGATCTGAACATACTGAGAT TGATCACTGGTTGGAGTTCAGTGCTACAAAATTATCTTCATGTGATTCCTTTACTTCTACAATTAATGAACTCAA TCATTGCCTGTCTCTGAGAACATACTTAGTTGGAAACTCCTTGAGTTTAGCAGATTTATGTGTTTTGGGCCACCCT AAAAGGAAATGCTGCCTGGCAAGAACAGTTGAAACAGAAGAAGCTCCAGTTCATGTAAAACGTTGGTTTGGCTT TCTTGAAGCCCAGCAGGCCTTCCAGTCAGTAGGTACCAAGTGGGATGTTTCAACAACCAAAGCTCGAGTGGCACC TGAGAAAAAGCAAGATGTTGGGAAATTTGTTGAGCTTCCAGGTGCGGAGATGGGAAAGGTTACCGTCAGATTTCC TCCAGAGGCCAGTGGTTACTTACACATTGGGCATGCAAAAGCTGCTCTTCTGAACCAGCACTACCAGGTTAACTT TAAAGGGAAACTGATCATGAGATTTGATGACACAAATCCTGAAAAAGGAAAAGGAAGATTTTGAGAAGGTTATCTT GGAAGATGTTGCAATGTTGCATATCAAACCAGATCAATTTACTTATACTTCGGATCATTTTGAAACTATAATGAA GTATGCAGAGAGCTAATTCAAGAAGGGAAGGCTTATGTGGATGATACTCCTGCTGAACAGATGAAAGCAGAACG TGAGCAGAGGATAGAATCTAAACATAGAAAAAACCCTATTGAGAAGAATCTACAAATGTGGGAAGAAATGAAAAA AGGGAGCCAGTTTGGTCACTCCTGTTGTTTGCGAGCAAAAATTGACATGAGTAACAATGGATGCATGAGAGA TTTTGCCTGCCCCATAGTTGACAGCATCGAAGGTGTTACACATGCCCTGAGAACAACAGAATACCATGACAGAGA TGAGCAGTTTTACTGGATTATTGAAGCTTTAGGCATAAGAAAACCATATATTTGGGAATATAGTCGGCTAAATCT AAGATTTCCTACGGTTCGTGGTGTACTGAGAAGAGGGATGACAGTTGAAGGACTGAAACAGTTTATTGCTGCTCA GGGCTCCTCACGTTCAGTCGTGAACATGGAGTGGGACAAAATCTGGGCGTTTAACAAAAAGGTTATTGACCCAGT GGCTCCACGATATGTTGCATTACTGAAGAAAGAAGTGATCCCAGTGAATGTACCTGAAGCTCAGGAGGAGATGAA AGAAGTAGCCAAACACCCAAAGATCCTGAGGTTGGCTTGAAGCCTGTGTGGTATAGTCCCAAAGTTTTCATTGA AGGTGCTGATGCAGAGACTTTTTCGGAGGGTGAGATGGTTACATTTATAAATTGGGGCAACCTCAACATTACAAA AATACACAAAAATGCAGATGGAAAAATCATATCTCTTGATGCAAAGTTTAATTTGGAAAACAAAGACTACAAGAA AACCACTAAGGTCACTTGGCTTGCAGAGACTACACATGCTCTTCCTATTCCAGTAATCTGTGTCACTTATGAGCA CTTGATCACAAAGCCAGTGCTAGGAAAAGACGAGGACTTTAAGCAGTATGTCAACAAGAACAGTAAGCATGAAGA GCTAATGCTAGGGGATCCCTGCCTTAAGGATTTGAAAAAAGGAGATATTATACAACTCCAGAGAAGAGGATTCTT CATATGTGATCAACCTTATGAACCTGTTAGCCCATATAGTTGCAAGGAAGCCCCGTGTGTTTTGATATACATTCC TGATGGGCACACAAAGGAAATGCCAACATCAGGGTCAAAGGAAAAGACCAAAGTAGAAGCCACAAAAAATGAGAC CTCTGCTCCTTTTAAGGAAAGACCAACACCTTCTCTGAATAATAATTGTACTACATCTGAGGATTCCTTGGTCCT TTACAATAGAGTGGCTGTTCAAGGAGATGTGGTTCGTGAATTAAAAGCCAAGAAAGCACCAAAGGAAGATGTAGA TGCAGCTGTAAAACAGCTTTTGTCTTTGAAAGCTGAATATAAGGAGAAAACTGGCCAGGAATATAAACCTGGAAA CCCTCCTGCTGAAATAGGACAGAATATTTCTTCTAATTCCTCAGCAAGTATTCTGGAAAGTAAATCTCTGTATGA TGTAGAATGCTTACTGTCCCTGAAGGCTCAGTATAAAGAAAAAACTGGGAAGGAGTACATACCTGGTCAGCCCCC ATTATCTCAAAGTTCGGATTCAAGCCCAACCAGAAATTCTGAACCTGCTGGTTTAGAAACACCAGAAGCGAAAGT ACTTTTTGACAAAGTAGCTTCTCAAGGGGAAGTAGTTCGGAAACTTAAAACTGAAAAAGCCCCTAAGGATCAAGT AGATATAGCTGTTCAAGAACTCCTTCAGCTAAAGGCACAGTACAAGTCTTTGATAGGAGTAGAGTATAAGCCTGT TCAGAAACAAATGATGGCCAAAGGAAAGACCCTTCTAAAAACCAAGGAGGTGGGCTCTCATCAAGTGGAGCAGG AGAAGGGCAGGGCCTAAGAAACAGACCAGGTTGGGTCTTGAGGCAAAAAAAGAAGAAAATCTTGCTGATTGGTA TTCTCAGGTCATCACAAAGTCAGAAATGATTGAATACCATGACATAAGTGGCTGTTATATTCTTCGTCCCTGGGC CTATGCCATTTGGGAAGCCATCAAGGACTTTTTTGATGCTGAGATCAAGAAACTTGGTGTTGAAAACTGCTACTT CCCCATGTTTGTGTCTCAAAGTGCATTAGAGAAAGAGAGACTCATGTTGCTGACTTTGCCCCAGAGGTTGCTTG GGTTACAAGATCTGGCAAAACCGAGCTGGCAGAACCAATTGCCATTCGTCCTACTAGTGAAACAGTAATGTATCC TGCATATGCAAAATGGGTACAATCACACAGAGACCTGCCCATCAAGCTCAATCAGTGGTGCAATGTGGTGCGTTG GGAATTCAAGCATCCTCAGCCTTTCCTACGTACTCGTGAATTTCTTTGGCAGGAAGGGCACAGTGCTTTTGCTAC CATGGAAGAGGCAGCGGAAGAGGTCTTGCAGATACTTGACTTATATGCTCAGGTATATGAAGAACTCCTGGCAAT TCCTGTTGTTAAAGGAAGAAAGACGGAAAAGGAAAAATTTGCAGGAGGAGACTATACAACTACAATAGAAGCATT TATATCTGCTAGTGGAAGAGCTATCCAGGGAGGAACATCACATCATTTAGGGCAGAATTTTTCCAAAATGTTTGA

# FIGURE 99B

#### 106/2682 FIGURE 100

MEHTEIDHWLEFSATKLSSCDSFTSTINELNHCLSLRTYLVGNSLSLADLCVWATLKGNAAWQEQLKOKKAPVHV KRWFGFLEAOOAFOSVGTKWDVSTTKARVAPEKKQDVGKFVELPGAEMGKVTVRFPPEASGYLHIGHAKAALLNO HYQVNFKGKLIMRFDDTNPEKEKEDFEKVILEDVAMLHIKPDQFTYTSDHFETIMKYAEKLIQEGKAYVDDTPAE QMKAEREQRIESKHRKNPIEKNLQMWEEMKKGSQFGHSCCLRAKIDMSSNNGCMRDPTLYRCKIQPHPRTGNKYN VYPTYDFACPIVDSIEGVTHALRTTEYHDRDEOFYWIIEALGIRKPYIWEYSRLNLNNTVLSKRKLTWFVNEGLV DGWDDPRFPTVRGVLRRGMTVEGLKQFIAAQGSSRSVVNMEWDKIWAFNKKVIDPVAPRYVALLKKEVIPVNVPE AOEEMKEVAKHPKNPEVGLKPVWYSPKVFIEGADAETFSEGEMVTFINWGNLNITKIHKNADGKIISLDAKFNLE NKDYKKTTKVTWLAETTHALPIPVICVTYEHLITKPVLGKDEDFKQYVNKNSKHEELMLGDPCLKDLKKGDIIQL QRRGFFICDQPYEPVSPYSCKEAPCVLIYIPDGHTKEMPTSGSKEKTKVEATKNETSAPFKERPTPSLNNNCTTS EDSLVLYNRVAVQGDVVRELKAKKAPKEDVDAAVKQLLSLKAEYKEKTGQEYKPGNPPAEIGQNISSNSSASILE SKSLYDEVAAQGEVVRKLKAEKSPKAKINEAVECLLSLKAQYKEKTGKEYIPGQPPLSQSSDSSPTRNSEPAGLE TPEAKVLFDKVASQGEVVRKLKTEKAPKDQVDIAVQELLQLKAQYKSLIGVEYKPVSATGAEDKDKKKKEKENKS EKQNKPQKQNDGQRKDPSKNQGGGLSSSGAGEGQGPKKQTRLGLEAKKEENLADWYSQVITKSEMIEYHDISGCY ILRPWAYAIWEAIKDFFDAEIKKLGVENCYFPMFVSQSALEKEKTHVADFAPEVAWVTRSGKTELAEPIAIRPTS ETVMYPAYAKWVQSHRDLPIKLNQWCNVVRWEFKHPQPFLRTREFLWQEGHSAFATMEEAAEEVLQILDLYAQVY EELLAIPVVKGRKTEKEKFAGGDYTTTIEAFISASGRAIQGGTSHHLGQNFSKMFEIVFEDPKIPGEKOFAYQNS WGLTTRTIGVMTMVHGDNMGLVLPPRVACVQVVIIPCGITNALSEEDKEALIAKCNDYRRRLLSVNIRVRADLRD NYSPGWKFNHWELKGVPIRLEVGPRDMKSCQFVAVRRDTGEKLTVAENEAETKLQAILEDIQVTLFTRASEDLKT HMVVANTMEDFQKILDSGKIVQIPFCGEIDCEDWIKKTTARDQDLEPGAPSMGAKSLCIPFKPLCELQPGAKCVC GKNPAKYYTLFGRSY

#### 107/2682 FIGURE 101

# 108/2682 FIGURE 102

 ${\tt MPSQMEHAMETMMFTFHKFAGDKGYLTKEDLRVLMEKEFPGFLENQKDPLAVDKIMKDLDQCRDGKVGFQSFFSLIAGLTIACNDYFVVHMKQKGKK}$ 

 $\tt CGCGTGAACTGCTTCCTGCAGGCTGGCCATGGCGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTCACGTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTTGCCCAGATGCTCAAGGCTCCGGGCTTCACGTTCCCAAGGCTCCGGGCTTCACGTTCCCAAGGCTCCGGGCTTTGCCCAAGGCTCCGGGCTTCACGTTCAAGGCTCCGGGCTTCACGTTCCCAAGGCTCCGGTCTCACGTTCCCAAGGCTCCGGGCTTTCACGTTCCCAAGGCTCCGGGCTTTCACGTTCCCAAGGCTCCGGGCTTCACGTTCACGTTCCCAAGGCTTCACGTTCCCAAGGCTCCGGGCTTTCACGTTCCCAAGGCTCCGGGCTTTCACGTTCAAGGCTCCAAGGCTCCGGGCTTCAAGGCTAAGGCTCAAGGCTTCAAGGCTCAAGGCTCAAGGCTCAAGGCTCAAG$ GGAGGGAGCGAAACACTTTTCAGGATTAGAAGAGGCTGTGTATAGAAACATACAAGCTTGCAAGGAGCTTGCCCA AAACGATGCAGCAACTATTTTAAGAGAACTAGAAGTACAGCATCCTGCTGCAAAAATGATTGTAATGGCTTCTCA TATGCAAGAGCAAGAAGTTGGAGATGGCACAAACTTTGTTCTGGTATTTGCTGGAGCTCTCCTGGAATTAGCTGA AGAACTTCTGAGGATTGGCCTGTCAGTTTCAGAGGTCATAGAAGGTTATGAAATAGCCTGCAGAAAAGCTCATGA GATTCTTCCTAATTTGGTATGTTCTTCTGCAAAAAACCTTCGAGATATTGATGAAGTCTCATCTCTACTTCGTAC CTCCATAATGAGTAAACAATATGGTAATGAAGTATTTCTGGCCAAGCTTATTGCTCAGGCATGCGTATCTATTTT TCCTGATTCCGGCCATTTCAATGTTGATAACATCAGAGTTTGTAAAATTCTGGGCTCTGGTATCAGTTCCTCTTC AGTATTGCATGGCATGGTTTTTAAGAAGGAAACCGAAGGTGATGTAACATCTGTCAAAGATGCAAAAAATAGCAGT GTACTCTTGTCCTTTTGATGGCATGATAACAGAAACTAAGGGAACAGTGTTGATAAAGACTGCTGAAGAATTGAT GAATTTTAGTAAGGGAGAAAAACCTCATGGATGCACAAGTCAAAGCTATTGCTGATACTGGTGCAAATGTCGT CTCAAAATGGGATCTCCGAAGACTTTGTAAAACTGTTGGTGCTACAGCTCTTCCTAGATTGACACCTCCTGTCCT TGAAGAAATGGGACACTGTGACAGTGTTTACCTCTCAGAAGTTGGAGATACTCAGGTGGTGGTTTTTAAGCATGA AGTAGACGATGGTGTTAATACTTTCAAAGTTCTTACAAGGGATAAACGTCTTGTACCCGGAGGTGGAGCAACAGA **AATTGAATTAGCCAAACAGATCACATCATATGGAGAGACATGTCCTGGACTTGAACAGTATGCTATTAAGAAGTT** TGCTGAGGCATTTGAAGCTATTCCCCGCGCACTGGCAGAAAACTCTGGAGTTAAGGCCAATGAAGTAATCTCTAA ACTITATGCAGTACATCAAGAAGGAAATAAAAACGTTGGATTAGATATTGAGGCTGAAGTCCCTGCTGTAAAGGA CATGCTGGAAGCTGGTATTCTAGATACTTACCTGGGAAAATATTGGGCTATCAAACTCGCTACTAATGCTGCAGT CTGGGATGATGACCAAAATGAT<u>TGA</u>AATTGGCTTAATTTTTACTGTAGGTGAAGGCTGTATTTGTAGTAGTACTC AAGAATCACCTGATGTTTTCTTATTCTCCTTAAATTAAGAGTTATTTTGTGTTTTGTATTCTTGGCTGGATGTTAT **AATAAACATATTGTTACTGTC** 

# 110/2682 FIGURE 104

MALHVPKAPGFAQMLKEGAKHFSGLEEAVYRNIQACKELAQTTRTAYGPKGMNKMVINHLEKLFVTNDAATILRE LEVQHPAAKMIVMASHMQEQEVGDGTNFVLVFAGALLELAEELLRIGLSVSEVIEGYEIACRKAHEILPNLVCCS AKNLRDIDEVSSLLRTSIMSKQYGNEVFLAKLIAQACVSIFPDSGHFNVDNIRVCKILGSGISSSSVLHGMVFKK ETEGDVTSVKDAKIAVYSCPFDGMITETKGTVLIKTAEELMNFSKGEENLMDAQVKAIADTGANVVVTGGKVADM ALHYANKYNIMLVRLNSKWDLRRLCKTVGATALPRLTPPVLEEMGHCDSVYLSEVGDTQVVVFKHEKEDGAISTI VLRGSTDNLMDDIERVVDDGVNTFKVLTRDKRLVPGGGATEIELAKQITSYGETCPGLEQYAIKKFAEAFEAIPR ALAENSGVKANEVISKLYAVHQEGNKNVGLDIEAEVPAVKDMLEAGILDTYLGKYWAIKLATNAAVTVLRVDQII MAKPAGGPKPPSGKKDWDDDQND

# FIGURE 105

GGATCCGGCAACGAAGGTACCATCGCGGGACGTGGCGCCATGGTGCTGTTGCACGTGCTGTTTGAGCACGCGGTC GGCTACGCGCTCGTGGCGCTGAAGGAAGTGGAGGAGATCAGTCTGCTGCAGCCGCAGGTGGAGGAGTCCGTGCTC AACCTGGGCAAATTCCACAGCATCGTTCGTCTGGTGGCCTTTTGTCCCTTTGCCTCATCCCAGGTTGCCTTGGAA AATGCCAACGCCGTGTCTGAAGGGGTTGTTCATGAGGACCTCCGCCTGCTCTTGGAGACCCACCTGCCGTCCAAA AAGAAGAAAGTACTCTTGGGAGTTGGGGATCCCAAGATTGGTGCCGCAATACAGGAGGAGTTAGGGTACAACTGC CAGACTGGAGGAGTCATAGCTGAGATCCTGCGAGGAGTTCGTCTGCACTTCCACAATCTGGTGAAGGGTCTGACC GATCTGTCAGCTTGTAAAGCACAGCTGGGGCTGGGACACAGCTATTCCCGTGCCAAAGTTAAGTTTAATGTGAAC CGGGTGGACAATATGATCATCCAGTCCATTAGCCTCCTGGACCAGCTGGATAAGGACATCAATACCTTCTCTATG CGTGTCAGGGAGTGGTACGGGTATCACTTTCCGGAGCTGGTGAAGATCATCAACGACAATGCCACATACTGCCGT CTTGCCCAGTTTATTGGAAACCGAAGGGAACTGAATGAGGACAAGCTGGAGAAGCTGGAGAGCTGACAATGGAT GGGGCCAAGGCTAAGGCTATTCTGGATGCCTCACGGTCCTCCATGGGCATGGACATATCTGCCATTGACTTGATA AACATCGAGAGCTTCTCCAGTCGTGTGGTGTCTTTATCTGAATACCGCCAGAGCCTACACTTACCTGCGCTCC AAGATGAGCCAAGTAGCCCCAGCCTGTCAGCCCTAATTGGGGAAGCGGTAGGTGCACGTCTCATCGCACATGCT GGCAGCCTCACCAACCTGGCCAAGTATCCAGCATCCACAGTGCAGATCCTTGGGGCTGAAAAGGCCCTGTTCAGA GCCCTGAAGACAAGGGGTAACACTCCAAAATATGGACTCATTTTCCACTCCACCTTCATTGGCCGAGCAGCTGCC AAGAACAAAGGCCGCATCTCCCGATACCTGGCAAACAAATGCAGTATTGCCTCACGAATCGATTGCTTCTCTGAG GTGCCCACGAGTGTATTCGGGGAGAAGCTTCGAGAACAAGTTGAAGAGCGACTGTCCTTCTATGAGACTGGAGAG ATACCACGAAAGAATCTGGATGTCATGAAGGAAGCAATGGTTCAGGCAGAGGCAGAGGAAGCGGCTGCTGAGATT TCTTCAGAAAACAGCAGTAGTACTCCAGAGGAGTGTGAGGAGACGAGTGAAAAACCCCAAAAAGAAGAAAAAGCAA TCTTTTTCCAAGGAGGAGTTGATGAGTAGCGATCTTGAAGAGACCGCTGGCAGCACCAGTATTCCCAAGAGGAAG AAATTCTCCAAAGAGGCCGGTCAGCAGTGGGCCTGAAGAGGCGGTTGGCAAGAGCAGCTCCAAGAAGAAGAAAA  ${\tt AAGTTCCATAAAGCATCCCAGGAAGAT} \underline{{\tt TAG}} {\tt AATGCAAATGGACATTCTCTGGGAGGTGGGGCATACCATAGCCCA}$ TTCCTGAGGCCGCAAGGGAATTC

# FIGURE 106

MAGRGAMVLLHVLFEHAVGYALVALKEVEEISLLQPQVEESVLNLGKFHSIVRLVAFCPFASSQVALENANAVSE
GVVHEDLRLLETHLPSKKKKVLLGVGDPKIGAAIQEELGYNCQTGGVIAEILRGVRLHFHNLVKGLTDLSACKA
QLGLGHSYSRAKVKFNVNRVDNMIIQSISLLDQLDKDINTFSMRVREWYGYHFPELVKIINDNATYCRLAQFIGN
RRELNEDKLEKLEELTMDGAKAKAILDASRSSMGMDISAIDLINIESFSSRVVSLSEYRQSLHTYLRSKMSQVAP
SLSALIGEAVGARLIAHAGSLTNLAKYPASTVQILGAEKALFRALKTRGNTPKYGLIFHSTFIGRAAAKNKGRIS
RYLANKCSIASRIDCFSEVPTSVFGEKLREQVEERLSFYETGEIPRKNLDVMKEAMVQAEAEEAAAEITRKLEKQ
EKKRLKKEKKRLAALALASSENSSSTPEECEETSEKPKKKKKQKPQEVPQENGMEDPSISFSKPKKKKKFFKEEL
MSSDLEETAGSTSIPKRKKSTPKEETVNDPEEAGHRSRSKKKRKFSKEEPVSSGPEEAVGKSSSKKKKKFHKASQ
ED

## 113/2682 FIGURE 107

# 114/2682 FIGURE 108

MLSSTAMYSAPGRDLGMEPHRAAGPLQLRFSPYVFNGGTILAIAGEDFAIVASDTRLSEGFSIHTRDSPKCYKLT DKTVIGCSGFHGDCLTLTKIIEARLKMYKHSNNKAMTTGAIAAMLSTILYSRRFFPYYVYNIIGGLDEEGKGAVY SFDPVGSYQRDSFKAGGSASAMLQPLLDNQVGFKNMQNVEHVPLSLDRAMRLVKDVFISAAERDVYTGDALRICI VTKEGIREETVSLRKD

**ATG**CCCGAGAATGTGGCACCCCGGAGCGGGCGACTGCCGGGGGCTGCCGGCGGCGGGAAAGGCCCCTATCAG GACCGCGACAAGCCAGACCCAGATCCGCTTCAGCAACATTTCCGCCGCCAAAGCGGTTGCTGATGCTATTAGAACA AGCCTTGGACCAAAAGGAATGGATAAAATGATTCAAGATGGAAAAGGTGATGTAACCATTACAAATGATGGTGCT ACCATTCTGAAACAAATGCAAGTATTACATCCAGCAGCCAGAATGCTGGTGGAGCTGTCTAAGGCTCAAGATATA GAAGCAGGAGATGGCACCACATCAGTAGTCATCATTGCTGGCTCCCTCTTAGATTCTTGTACCAAGCTTCTTCAG ATGTCTCGACCTGTGGAACTGAGTGACAGAGAAACTTTGTTAAATAGTGCAACCACTTCACTGAACTCAAAGGTG GTTTCTCAGTATTCAAGTCTGCTTTCTCCAATGAGTGTAAATGCAGTGATGAAAGTGATTGACCCAGCCACAGCC ACCAGTGTAGATCTTAGAGATATTAAAATAGTTAAGAAGCTTGGTGGGACAATTGATGACTGTGAGTTGGTGGAA GGGCTGGTTCTCACCCAAAAAGTGTCAAATTCTGGCATAACCAGAGTTGAAAAAGGCCAAGATTGGGCTTATTCAG TTTTGCTTATCTGCTCCCAAAACAGACATGGATAATCAAATAGTGGTTTCTGACTATGCCCAGATGGACCGAGTG CAGAAATCTATTCTAAGAGATGCTCTTAGTGATCTTGCATTACACTTTCTGAATAAAATGAAGATCATGGTGATT AAGGATATTGAAAGAGAAGACATTGAATTCATTTGTAAGACAATTGGAACCAAGCCAGTTGCTCATATTGACCAA TTTACTGCTGACATGCTGGGTTCTGCTGAGTTAGCTGAGGAGGTCAATTTAAATGGTTCTGGCAAACTGCTCAAG ATTACAGGCTGTGCCAGCCCTGGAAAAACAGTTACAATTGTTGTTCGTGGTTCTAACAAACTGGTGATTGAAGAA GCTGAGCGCTCCATTCATGATGCCCTATGTGTTATTCGTTGTTTAGTGAAGAAGAGGGCTCTTATTGCAGGAGGT GGTGCTCCAGAAATAGAGTTGGCCCTAGCATTAACTGAATATTCACGAACACTGAGTGGTATGGAATCCTACTGC GTTCGTGCTTTTGCAGATGCTATGGAGGTCATTCCATCTACACTAGCTGAAAATGCCGGCCTGAATCCCATTTCT ACAGTAACAGAACTAAGAAACCGGCATGCCCAGGGAGAAAAAACTGCAGGCATTAATGTCCGAAAGGGTGGTATT GTTCGGAGCATTCTGAAAATAGATGATGTGGTAAACACTCGA<u>TAA</u>TCTGGATAACTGACTAGCACCATTATGATC ACCAGTATTGTGGCTGGAATGGAAGATCACCTTGGTGTTCCTTGTTTGGAAGATTATTTCCTCTGAATTTCT GGGCTTGGTCTTCCAGTTGGCATTTGCCTGAAGTTGTATTGAAACAATTTAATGAAAATATTAAATATTTGGTTT CAAAAGGCAGATTTATCTTCTCCCAACATTCTGTTATTTCTGATACTTTTGAAAAAACTAATAAAAACTAATAAAAA GAAGCGTA

#### 116/2682 FIGURE 110

MPENVAPRSGATAGAAGGRGKGAYQDRDKPAQIRFSNISAAKAVADAIRTSLGPKGMDKMIQDGKGDVTITNDGA
TILKQMQVLHPAARMLVELSKAQDIEAGDGTTSVVIIAGSLLDSCTKLLQKGIHPTIISESFQKALEKGIEILTD
MSRPVELSDRETLLNSATTSLNSKVVSQYSSLLSPMSVNAVMKVIDPATATSVDLRDIKIVKKLGGTIDDCELVE
GLVLTQKVSNSGITRVEKAKIGLIQFCLSAPKTDMDNQIVVSDYAQMDRVLREERAYILNLVKQIKKTGCNVLLI
QKSILRDALSDLALHFLNKMKIMVIKDIEREDIEFICKTIGTKPVAHIDQFTADMLGSAELAEEVNLNGSGKLLK
ITGCASPGKTVTIVVRGSNKLVIEEAERSIHDALCVIRCLVKKRALIAGGGAPEIELALALTEYSRTLSGMESYC
VRAFADAMEVIPSTLAENAGLNPISTVTELRNRHAQGEKTAGINVRKGGISNILEELVVQPLLVSVSALTLATET
VRSILKIDDVVNTR

CTGCGGCGCGGGCGGAACTTTCTAGAACGCTCGGTGAGAGGCGGAGGAGCGGTAACTACCCCGGCTGCGCAC AGCTCGGCGCTCCTTCCCGCTCCCTCACACACCGGCCTCAGCCCGCACCGGCAGTAGAAGAAGAAACA ACTTACTACGATGTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGAAAAAGGCTTATAGGAAACTGGCT TTGAAGTACCATCCTGATAAGAACCCAAATGAAGGAGAGAGTTTAAACAGATTTCTCAAGCTTACGAAGTTCTC TCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTAAAGAGGGTGGAGCAGGTGGCGGT AATGTTGTACATCAGCTCTCAGTAACCCTAGAAGACTTATATAATGGTGCAACAAGAAAACTGGCTCTGCAAAAG AATGTGATTTGTGACAAATGTGAAGGTAGAGGAGGTAAGAAAGGAGCAGTAGAGTGCTGTCCCAATTGCCGAGGT **ACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAATTCAGTCTGTGTGCATGGAGTGC** AAAATTTTAGAAGTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAACATTCCATGGTGAAGGACCAA GAACCAGGACTGGAGCCAGGCGATATTATCATTGTGTTAGATCAGAAGGACCATGCTGTTTTTACTCGACGAGGA GAAGACCTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACTGTGTGGCTTCCAGAAGCCAATATCTACTCTT GACAACCGAACCATCGTCATCACCTCTCATCCAGGTCAGATTGTCAAGCATGGAGATATCAAGTGTGTACTAAAT GAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCTAATCATCGAATTTAAGGTAAACTTTCCTGAG GATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGACGGCGCCACTACAATGGAGAAGCA TATGAGGATGATGAACATCATCCCAGAGGTGGTGTTCAGTGTCAGACCTCT<u>TAA</u>TGGGCCAGTGAATAACACTCA CTGCTGGCATTTAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAATATGCTCACTACTTGCTCTTGTTT TTGTTTTAATAAACTATAGTAGTGTTTTAAAAAGTTAAATGAAGAATAAACGCAAATATAAAAGCTCTGATTTTG CCCTGTATGTATGATGACTTCAGTGTGCAAGATGAAGTTTAATACCTGTAAAAACTACAAAGAAGTTCCCCTAGC ATTTCTAGGCCAAACCTTGTAATTGACTTCAGCTATGTACGTGGACAAGCTTAGACTGAAATGCTAGGTATATGT ATTGGCTTCAGTGTATGACCCTTCATTGTTAAGCTATGAAAGTAAAACTCTGTATTTAACTGGCAATGAGGAAAA AAAAATTTTGTAGAGAAGTGTTGGTCTGTATAGTTCTTTATATTAAGTGGGATTCATTGTAATGCCTCTGCATTT ATTCTGTTGCCTCAGCTGTTACTTGAAGATGGCGTAATATATAATTTATCCTGTGGTATCAGTGATAAAAATGAT ACCTTTCTGTAGGAGGGGTTTATCATAATATGCTGCTTCTTGAAGGCTTGCACTTCCAGAATTGTGTTTCCTTCT TGTGGACCATGATAAGCCCAAGTAGTGACTTCAGAGCTGGGTAACAGAAATTAAAGTGAAAAAGACCTTTACGTGG AGAATTTGCATGCGTAATATAGGAAGGTGTTCTTTAGGTATGTTACAGGATTACTTTAAACCATTTGACTTTCGC TCCAAAGTTATGTTGGTAGTATAGCAAATTATGATGAATAGCTTTAATTGTATGTTTAAAAGTCTCATATGTTCA CATGCTTAAATCTGGGTATCAGAATTTAAGCAATTCTTGAAATGTATTGTCTCCTTAATATACTAATTACAAAGC ATCTCCAATGTGTGTCACTACAGGCTTTTTTTTCCCAGATCATCAAATTTTGGCTTTTAACTAAGATACATAGCT TTATTTTAGCTAGTCTGAATGAGTGATACAAAAATACTATTGAACTATAGTTAAATAATATTAAATAGGATGGAG AGTAAAAGTGGAGGACTGGGTAATGAGCCAAGAAGAAGGGGGTG

# 118/2682 FIGURE 112

MVKETTYYDVLGVKPNATQEELKKAYRKLALKYHPDKNPNEGEKFKQISQAYEVLSDAKKRELYDKGGEQAIKEG GAGGGFGSPMDIFDMFFGGGGRMQRERRGKNVVHQLSVTLEDLYNGATRKLALQKNVICDKCEGRGGKKGAVECC PNCRGTGMQIRIHQIGPGMVQQIQSVCMECQGHGERISPKDRCKSCNGRKIVREKKILEVHIDKGMKDGQKITFH GEGDQEPGLEPGDIIIVLDQKDHAVFTRRGEDLFMCMDIQLVEALCGFQKPISTLDNRTIVITSHPGQIVKHGDI KCVLNEGMPIYRRPYEKGRLIIEFKVNFPENGFLSPDKLSLLEKLLPERKEVEETDEMDQVELVDFDPNQERRRH YNGEAYEDDEHHPRGGVQCQTS

CGGTAACTACCCCGGCTGCGCACAGCTCGGCGCTCCTTCCCGCTCCTCACACACCCGCCTCAGCCCGCACCGGCA GTAGAAGATGGTGAAAGAAACAACTTACTACGATGTTTTGGGGGTCAAACCCAATGCTACTCAGGAAGAATTGAA AAAGGCTTATAGGAAACTGGCCTTGAAGTACCATCCTGATAAGAACCCAAATGAAGGAGAAGTTTAAACAGAT TTCTCAAGCTTACGAAGTTCTCTCTGATGCAAAGAAAAGGGAATTATATGACAAAGGAGGAGAACAGGCAATTAA GCAGAGAAAGGAGAGGTAAAAATGTTGTACATCAGCTCTCAGTAACCCTAGAAGACTTATATAATGGTGCAAC AAGAAAACTGGCTCTGCAAAAGAATGTGATTTGTGACAAATGTGAAGGTAGAGGAGGTAAGAAAGGAGCAGTAGA GTGCTGTCCCAATTGCCGAGGTACTGGAATGCAAATAAGAATTCATCAGATAGGACCTGGAATGGTTCAGCAAAT AAGGAAGATAGTTCGAGAGAAGAAAATTTTAGAAGTTCATATTGACAAAGGCATGAAAGATGGCCAGAAGATAAC ATTCCATGGTGAAGGAGCCAAGAACCAGGACTGGAGCCAGGCGATATTATCATTGTGTTAGATCAGAAGGACCA TGCTGTTTTTACTCGACGAGGAGAAGACCTTTTCATGTGTATGGACATACAGCTCGTTGAAGCACTGTGTGGCTT CCAGAAGCCAATATCTACTCTTGACAACCGAACCATCGTCATCACCTCTCATCCAGGTCAGATTGTCAAGCATGG AGATATCAAGTGTGTACTAAATGAAGGCATGCCAATTTATCGTAGACCATATGAAAAGGGTCGCCTAATCATCGA ATTTAAGGTAAACTTTCCTGAGAATGGCTTTCTCTCTCTGATAAACTGTCTTTGCTGGAAAAACTCCTACCCGA GAGGAAGGAAGTGGAAGAGACTGATGAGATGGACCAAGTAGAACTGGTGGACTTTGATCCAAATCAGGAAAGACG GCGCCACTACAATGGAGAAGCATATGAGGATGATGAACATCATCCCAGAGGTGGTGTTCAGTGTCAGACCTCT**TA** ATGGCCAGTGAATAACACTCACTGCTGGCATTTAATGTGCAGTAGTGAATGAGTGAAGGACTGTAATCATAATAT GCTCACTACTTGCTCTTGTTTTTGTTTTAATAAACTATAGTAGTGTTATAAAAAGTTAAATGAAGAATAAACGCA AATATAAAAGCTC

# 120/2682 FIGURE 114

MVKETTYYDVLGVKPNATQEELKKAYRKLALKYHPDKNPNEGEKFKQISQAYEVLSDAKKRELYDKGGEQAIKEG GAGGGFGSPMDIFDMFFGGGGRMQRERRGKNVVHQLSVTLEDLYNGATRKLALQKNVICDKCEGRGGKKGAVECC PNCRGTGMQIRIHQIGPGMVQQIQSVCMECQGHGERISPKDRCKSCNGRKIVREKKILEVHIDKGMKDGQKITFH GEGDQEPGLEPGDIIIVLDQKDHAVFTRRGEDLFMCMDIQLVEALCGFQKPISTLDNRTIVITSHPGQIVKHGDI KCVLNEGMPIYRRPYEKGRLIIEFKVNFPENGFLSPDKLSLLEKLLPERKEVEETDEMDQVELVDFDPNQERRRH YNGEAYEDDEHHPRGGVQCQTS

GGGCGGGTGCCGCATCCCCAGCCCGCCGCCATGCCCCAAAACTGGTGCTGATCCGGCACGGCGAGAGCGCATGGAACCTGGAGAACCGCTTCAGCGGCTGGTACGACGCCGACCTGAGCCCGGCGGGCCACGAGGAGGCGAAGCG CGGCGGGCAGGCGCTACGAGATGCTGGCTATGAGTTTGACATCTGCTTCACCTCAGTGCAGAAGAGAGCGATCCG GACCCTCTGGACAGTGCTAGATGCCATTGATCAGATGTGGCTGCCAGTGGTGAGGACTTGGCGCCTCAATGAGCG GCACTATGGGGGTCTAACCGGTCTCAATAAAGCAGAAACTGCTGCAAAGCATGGTGAGGCCCAGGTGAAGATCTG GAGGCGCTCCTATGATGTCCCACCACCTCCGATGGAGCCCGACCATCCTTTCTACAGCAACATCAGTAAGGATCG CAGGTATGCAGACCTCACAGAAGATCAGCTACCCTCCTGTGAGAGTCTGAAGGATACTATTGCCAGAGCTCTGCC CTTCTGGAATGAAGAAATAGTTCCCCAGATCAAGGAGGGGAAACGTGTACTGATTGCAGCCCATGGCAACAGCCT CCGGGGCATTGTCAAGCATCTGGAGGGTCTCTCTGAAGAGGCTATCATGGAGCTGAACCTGCCGACTGGTATTCC CATTGTCTATGAATTGGACAAGAACTTGAAGCCTATCAAGCCCATGCAGTTTCTGGGGGATGAAGAGACGGTGCG  ${\tt CAAAGCCATGGAAGCTGTGGCTGCCCAGGGCAAGGCCAAGAAG{\tt TGAA}} GGCCGGCGGGGGAGGATACTGTCCCCAGG$ AGCACCCTCCCTGCCCGTCTTGTCCCTCTGCCCCTCCCACCTGCACATGTCACACTGACCACATCTGTAGACATC  ${\tt TTGAGTTGTAGCTGCAGACGGGGACCAGTGGCTCCCATTTTCATTTTAGCCATTTTGTCGCCTGCACCCACTCCC}$ TTCATACAATCTAGTCAGAATAGCAGTTCTAGAGCACAGGTTCTCAGTCTAAGCTATGGAAAAGCTCCCCTTATC CAACAGAGTTTAAAAGTAGTGACTTGGGTTTTTTGCGAGTGCTTTGTTTACTAAGGACTTTGGGGAGGAACCATGC AGTCAGGTCACTGCCTACTGCCTGGGGGCTCTAGTCATTCCAGTGGAAGACGAATGTAACCTGCGTGGTGATGTG ACAACTGTTTCCTCCCTGACCCCAGAGGATCTGGCTCTAGGTTGGGATCAATCCTGAATTTCGTTATGTGTTAAT TTACTTTTATTAAAAAAGTATAGTATATATAATACAAAACAATAACCCTTCTGGGGTTTCTTGTGGCGGTTGAAA TAGTCCCACATGTGGTCATCAGAAATAGCATTCCTCATACCAATATAGGATCAGCTCCTTGACCTCTGAGGGGTC AGGAGTGCTTCCTGGTGTGTATTAGAATCCCTTCCTGCCTTGTTTCATGGCAGTGAAATGCCTCTTGGTCCTG TCCAGTGTATCTTCACTGATTTCTGAATCATGTTCTAGTTGCTTGACCCTGCCACATGGGTCCAGTGTTCATCT GAGCATAACTGTACTAAATCCTTTTTCCATATCAGTATAATAAAGGAGTGATGTGCAAT

# 122/2682 FIGURE 116

MAAYKLVLIRHGESAWNLENRFSGWYDADLSPAGHEEAKRGGQALRDAGYEFDICFTSVQKRAIRTLWTVLDAID QMWLPVVRTWRLNERHYGGLTGLNKAETAAKHGEAQVKIWRRSYDVPPPPMEPDHPFYSNISKDRRYADLTEDQL PSCESLKDTIARALPFWNEEIVPQIKEGKRVLIAAHGNSLRGIVKHLEGLSEEAIMELNLPTGIPIVYELDKNLK PIKPMQFLGDEETVRKAMEAVAAQGKAKK

CGAGCGGGAATCCCGTTCTGCTTCCAGAAGTGGAAGTGCTCACGGATCGGGGAAATCTGCAAGGCATACCCCTGC AAGGTCTCGCTCCAAGGAAGATTCCAGGCGTTCCAGATCAAAGTCCAGGTCCCGATCTGAATCTAGGTCTAGATC CAGAAGAAGCTCCCGAAGGCATTATACCCGGTCACGGTCTCCCCTCCCCATAGACGATCACGTAGCAGGTC TTACAGTCGAGATTATCGTAGACGGCACAGCCACAGCCATTCTCCCATGTCTACTCGCAGGCGTCATGTTGGGAA TCGGGCAAATCCTGATCCTAACTGTTGTCTTGGAGTATTTGGGCTGAGCTTGTACACCACAGAAAGAGATCTAAG AGAAGTGTTCTCTAAATATGGTCCCATTGCCGATGTGTCTATTGTATATGACCAGCAGTCTAGGCGTTCAAGAGG ATTTGCCTTTGTATATTTTGAAAATGTAGATGATGCCAAGGAAGCTAAAGAACGTGCCAATGGAATGGAGCTTGA TGGGCGTAGGATCAGAGTTGATTTCTCTATAACAAAAAGACCACATACGCCAACACCAGGAATTTACATGGGGAG ACCTACCTATGGCAGCTCTCGCCGTCGGGATTACTATGACAGAGGATATGATCGGGGCTATGATGATCGGGACTA CTATAGCAGATCATACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGCTGCCCAAGACAGGGATCAGATTTA TAGAAGGCGGTCACCTTCTCCTTACTATAGTCGTGGAGGATACAGATCACGTTCCAGATCTCGATCATACTCACC ATTGTCTCTTGTTTAAAAAGTGAACAGTGCCTAGTGAAGTTAGGTGACTTTTACACCTTTTACGATGACTACTTT TGGTGGAGTTGAAATGCTGTTTTCATTCTGCATTTGTGTAGTTTGGTGCTTTGTTCCAAGTTAAGTGTTTTCAGA AAAGTATGTTTTGCATGTATTTTTTTACAGTCTAAATTTTGACTGCTGAGAAGTTTCTATTGTACAAAACTTCAT TTAAAAGGTTTTTCTACTGAATCCAGGGTATTCTGAAGATCGAAGCCTGTGTAAAATGCTACCAAATGGCAAAAA GCAACAATAAACAGTTTGATTTTTACTTTTCTTACATATCAATGCTTAGCAGAACTATTCAGATTGTCAGT AGTAAATTTAAAGACAAATGCCCGTTTTCCTCCAGTCCATGAAACATACCATACTTATATACCTGCAACTAAGTG TTTAAAATTATGCTCTGTAACTCTGTACTGCTAGTATTAGAACTAAAAATCTTAAAATACAGCCAGTGCTTAATG CTTATATCAATGTGGATTTGTCGGCTTTTATGTAATCTGTAATATGTATAGCAGGAAATACGAAGAGTTACACAG TGTATGCCTTAAAAGGCTGTTTCTTAAAGGTGTTACAAGGGGATAATGGTATTTCAACTAGTTATCAGCAAGTGA CAATACATTCCACCACAAATACACTCTTGTTCTTCTAGCTTTTAGACTATATGAAAAAAACCGGGTGCTTCAAAGT ACATGATAAGGGAACACTATACCTGTCATGGATGAACTGAAGACTTTGCCTGTTCATTTTTTAAATATTATTTTC AAAGAAAAAAAAAAAAAAAA

# 124/2682 FIGURE 118

MSDSGEQNYGERESRSASRSGSAHGSGKSARHTPARSRSKEDSRRSRSKSRSRSESRSRRSSRRHYTRSRSR RSHRRSRSRSYSRDYRRRHSHSHSPMSTRRHVGNRANPDPNCCLGVFGLSLYTTERDLREVFSKYGPIADVSIV YDQQSRRSRGFAFVYFENVDDAKEAKERANGMELDGRRIRVDFSITKRPHTPTPGIYMGRPTYGSSRRRDYYDRG YDRGYDDRDYYSRSYRGGGGGGGGWRAAQDRDQIYRRRSPSPYYSRGGYRSRSRSYSPRRY

#### 125/2682 FIGURE 119

ATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCTTCCCAGCCCAC GATATGGAGGAAGAGCTCAGGTGGAAAAGGAGGGGGCTACTCTAAGGCTGAGTGGAGCGACAGTGCCCAGGG GTCTGAGTCTCACAGCTTGTAAAGCCTGAGACAGCTGCCTTGTGTGCGACTGAGATGCACAGCTGCCTTGTGTGC GACTGAGATGCAGGATTTCCTCACGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTTTGCAAGGGCCT CTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC CCCTTCCTCACACTGACCTGTGTTCCTTCCCTGTTCTCTTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC AGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGGGGCAGATCACGAGGTCAGGAGATCGAAACCATCC TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCACGGGCCTGTAG TCCCAGCTACTCAGGAGGCGGAGGCAGGAATGGCGTCAACCCGGGAGGCTGCAGTGAGCCAGGATTG CCTGGATCTCAATTTAATTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA CAGATAATTCCACAGCACATCTCTAGCAAATTTAGCCTATTCCTATTCTTAGCCTATTCCTTACCACCTGTAAT CTTGACCATATACCTTGGAGTTGAATATTGTTTTCATACTGCTGTGGTTTGAATGTTCCCTCCAACACTCATGTT GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT CATTCATGGGTTAATGGATTAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAAGAGAAC TGAGCTAGCATGCCCAACCCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGGAAATGTGAGGTGCAGCTGCCAC AGAGGCCCCCACCAGGGAAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG GGAGCAGGACCTGACCACCACCAGGACCCCAGAACTGTGGAGTCAGTGGCAGCATGCAGCCCCCCTTGGGAAAG CTTTAGGCACCAGCCTGCAACCCATTCGAGCAGCCACGTAGGCTCGACCCAGCAAAGCCACAGGCACGGGGCTAC CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGTCCGTGAGGCAGCACACGAAGTCAAAAGAGATTATCTCTT CCCACAGATACCTTTTCTCTCCCATGACCCTTTAACAGCATCTGCTTCATTCCCCTCACCTTCCCAGGCTGATCT GAGGTAAACTTTGAAGTAAAATAAAAGCTGTGTTTGAGCATC

<u>ATG</u>GGGCATCGGCCGGTGCTCGTGCTCAGCCAGAACACAAAGCGTGAATCCGGAAGAAAAGTTCAATCTGGAAAC ATCAATGCTGCCAAGACTATTGCAGATATCATCCGAACATGTTTGGGACCCAAGTCCATGATGAAGATGCTTTTG GACCCAATGGGAGGCATTGTGATGACCAATGATGGCAATGCCATTCTTCGAGAGATTCAAGTCCAGCATCCAGCG GCCAAGTCCATGATCGAAATTAGCCGGACCCAGGATGAAGAAGTTGGAGATGGGACCACATCAGTAATTATTCTT GCAGGGGAAATGCTGTCTGTAGCTGAGCACTTCCTGGAGCAGCAGATGCACCCAACAGTGGTGATCAGTGCTTAC CGCAAGGCATTGGATGATATGATCAGCACCCTAAAGAAAATAAGTATCCCAGTCGACATCAGTGACAGTGATATG ATGCTGAACATCATCAACAGCTCTATTACTACCAAAGCCATCAGCCGGTGGTCATCTTTGGCTTGCAACATTGCC CTGGATGCTGTCAAGATGGTACAGTTTGAGGAGAATGGTCGGAAAGAGATTGACATAAAAAAATATGCAAGAGTG GAAAAGATACCTGGAGGCATCATTGAAGACTCCTGTGTCTTGCGTGGAGTCATGATTAACAAGGATGTGACCCAT CCACGTATGCGGCGCTATATCAAGAACCCTCGCATTGTGCTGCTGGATTCTTCTCTGGAATACAAGAAAGGAGGA AGCCAGACTGACATTGAGATTACACGAGAGGAGGACTTCACCCGAATTCTCCAGATGGAGGAAGAGTACATCCAG CAGCTCTGTGAGGACATTATCCAACTGAAGCCCGATGTGGTCATCACTGAAAAGGGCATCTCAGATTTAGCTCAG TGTGGGGCCCGGATAGTCAGCCGACCAGAGGAACTGAGAGAAGATGATGTTGGAACAGGAGCAGGCCTGTTGGAA CGGGGGGCTAGCAAAGAGATTCTCTCGGAAGTAGAACGCAACCTCCAGGATGCCATGCAAGTGTGTCGCAATGTT CTCCTGGACCCTCAGCTGGTGCCAGGGGGTGGGGCCTCCGAGATGGCTGTCGCCCATGCCTTGACAGAAAAATCC AAGGCCATGACTGGTGTGGAACAATGGCCATACAGGGCTGTTGCCCAGGCCCTAGAGGTCATTCCTCGTACCCTG ATCCAGAACTGTGGGGCCAGCACCATCCGTCTACTTACCTCCCTTCGGGCCAAGCACACCCAGGAGAACTGTGAG ACCTGGGGTGTAAATGGTGAGACGGGTACTTTGGTGGACATGAAGGAACTGGGCATATGGGAGCCATTGGCTGTG AAGCTGCAGACTTATAAGACAGCAGTGGAGACGGCAGTTCTGCTACTGCGAATTGATGACATCGTTTCAGGCCAC AAAAAGAAAGGCGATGACCAGAGCCGGCAAGGCGGGGCTCCTGATGCTGGCCAGGAG<u>TGA</u>GTGCTAGGCAAGGCT ACTTCAATGCACAGAACCAGCAGAGTCTCCCCTTTTCCTGAGCCAGAGTGCCAGGAACACTGTGGACGTCTTTGT TCAGAAGGGATCAGGTTGGGGGGCAGCCCCCAGTCCCTTTCTGTCCCAGCTCAGTTTTCCAAAAGACACTGACAT **ААААААААААААААААААА** 

# 127/2682 FIGURE 121

MGHRPVLVLSQNTKRESGRKVQSGNINAAKTIADIIRTCLGPKSMMKMLLDPMGGIVMTNDGNAILREIQVQHPA
AKSMIEISRTQDEEVGDGTTSVIILAGEMLSVAEHFLEQQMHPTVVISAYRKALDDMISTLKKISIPVDISDSDM
MLNIINSSITTKAISRWSSLACNIALDAVKMVQFEENGRKEIDIKKYARVEKIPGGIIEDSCVLRGVMINKDVTH
PRMRRYIKNPRIVLLDSSLEYKKGGSQTDIEITREEDFTRILQMEEEYIQQLCEDIIQLKPDVVITEKGISDLAQ
HYLMRANITAIRRVRKTDNNRIARACGARIVSRPEELREDDVGTGAGLLEIKKIGDEYFTFITDCKDPKACTILL
RGASKEILSEVERNLQDAMQVCRNVLLDPQLVPGGGASEMAVAHALTEKSKAMTGVEQWPYRAVAQALEVIPRTL
IQNCGASTIRLLTSLRAKHTQENCETWGVNGETGTLVDMKELGIWEPLAVKLQTYKTAVETAVLLLRIDDIVSGH
KKKGDDQSRQGGAPDAGQE

 ${\tt GGCACGAGGACCGCATTGCGGCTTGGTTTTCTCACCCAGTGCATGTGGCAGGAGCGGTGAGATCACTGCCT}$ CCAAACCTGTGTGCAGGATCCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGTCGATTCCG CACTGTGTTGCCCAGACTGGTCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCCAGAATGCCGAG ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA GCTTCCAAGAATGCTGAGGTTACAGGCACCATGAGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT GAGTTAGAGCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGGGGCGCCATGTCCCTGGCGGGAGCCGAGAAGAAT GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCAGCCGCGCTAAGTTCACGGGCCTGTCCAAG GAGGAGCTGCTGAAGGTGGCAGCCCCGGCTGGGTACGCACCCGCTGGGCACTGCTGCTGCTCTTCTGGCTC GGCTGGCTCGGCATGCTTGCTGGTGCCGTGGTCATAATCGTGCGAGCCGCGCGTTGTCGCGAGCTACCGGCGCAG AAGTGGTGGCACACGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTCCAGGGCCACGGCGCGGGCAACCTG GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCCTTGTGCTGGGTCCAATTCACAAG AACCAGAAGGATGATGTCGCTCAGACTGACTTGCTGCAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTTGAC AGTCTCTTGCAATCGGCTAAAAAAAAGGCATCCGTGTCATTCTGGACCTTACTCCCAACTACCGGGGTGAGAAC TCGTGGTTCTCCACTCAGGTTGACACTGTGGCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC GTGGATGGGTTCCAGGTTCGGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC ACCAAGGGCTTCAGTGAAGACAGGCTCTTGATTGCGGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA CTCGAATCCAACAAGACTTGCTGTTGACTAGCTCATACCTGTCTGATTCTGGTTCTACTGGGGAGCATACAAAA TCCCTAGTCACACAGTATTTGAATGCCACTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG ACTTCCTTCTTGCCGGCTCAACTTCTCCGACTCTACCAGCTGATGCTCTTCACCCTGCCAGGGACCCCTGTTTTC AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCCTGGACAGCCTATGGAGGCTCCAGTCATGCTGTGG GATGAGTCCAGCTTCCCTGACATCCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCCT GGCTCCCTCCTTTCCTTGTTCCGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACTGCATGGGGACTTC  ${\tt CACGCGTTCTCCGCTGGGCCTGGACTCTTCTCCTATATCCGCCACTGGGACCAGAATGAGCGTTTTCTGGTAGTG}$ AAGGCTGACCTCCTGCTCAGCACCCAGCCAGGCCGTGAGGAGGGCTCCCCTCTTGAGCTGGAACGCCTGAAACTG GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCCTACGCGGCC<u>TGA</u>CTTCAGCCTGACATGGACCCACTACCCTTC AAAAAAAAAAAA

## 129/2682 FIGURE 123

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAEKNGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP
GWVRTRWALLLLFWLGWLGMLAGAVVIIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL
SSLKVKGLVLGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTPNYRGENSWFSTQVDTV
ATKVKDALEFWLQAGVDGFQVRDIENLKDASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLLESNKDLLLT
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLPGTPVFSYGDEIGLDA
AALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAFSAGPGLF
SYIRHWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPAKADLLLSTQPGREEGSPLELERLKLEPHEGLLLRF
PYAA

 ${\tt GGCACGAGGCCCCGGTTCCGGCGCGGTTGAGGCCTTCGGTGGTGAACGAGTCTCCAGCACC} \underline{{\tt ATG}} {\tt TCTGGTTTGTC}$ TGGCCCACCAGCCCGGCGCGCCCTTTTCCGTTAGCGTTGCTGCTTTTGTTCCTGCTCGGCCCCAGATTGGTCCT TGCCATCTCCTTCCATCTGCCCATTAACTCTCGCAAGTGCCTCCGTGAGGAGATTCACAAGGACCTGCTAGTGAC TGGCGCGTACGAGATCTCCGACCAGTCTGGGGGCGCTGGCGGCCTGCGCAGCCACCTCAAGATCACAGATTCTGC TGGCCATATTCTCTACTCCAAAGAGGATGCAACCAAGGGGAAATTTGCCTTTACCACTGAAGATTATGACATGTT TGAAGTGTTTTTGAGAGCAAGGGAACAGGGCGGATACCTGACCAACTCGTGATCCTAGACATGAAGCATGGAGT GGAGGCGAAAAATTACGAAGAGATTGCAAAAGTTGAGAAGCTCAAACCATTAGAGGTAGAGCTGCGACGCCTAGA GTCAACAACACTCGGGTCCTATACTTCAGCATCTTTTCAATGTTCTGTCTCATTGGACTAGCTACCTGGCAGGT TACCTCAGCCAGCAGAACATCGCTGGGACGTGCCTGGCCTAAGGCATCCTACCAACAGCACCATCAAGGCACGTT GGAGCTTTCTTGCCAGAACTGATCTCTTTTGGTGTGGGAGGACATGGGGTACCACCTACACCCAACAAGTCAATG  ${\tt AGGGACTTCTTTTAATTTGGTAGGATTTTGACTGGTTTTGCAACAATAGGTCTATTATTAGAGTCACCTATGAC}$ AAAAAATAGGGGTTACCTAGATAATGCCAAAGTCAGCATTTGTCCTGGGTTCCCTTGTGTGATCTGTTTGGACTA TGTTTTCTTCTCCCCACTTGCTCAGCAGCTTGGGCTTCCATTCTAGTTCTTTTACCAAGATTTTTGTGTGA CCATGTTGACTTCATTTGGATTGCCCTCTTTCAATTTCCTTGTGAAAACACCCTTAACTTTCTCTTTACCCTTAG CTCATAAAAGTGAGCTTTGAACTGTAGATAACTCTTAAAGAAAATGTCATTTTAGACAATTAAAATATTTGTGCT 

# 131/2682 FIGURE 125

MSGLSGPPARRGPFPLALLLLFLLGPRLVLAISFHLPINSRKCLREEIHKDLLVTGAYEISDQSGGAGGLRSHLK ITDSAGHILYSKEDATKGKFAFTTEDYDMFEVCFESKGTGRIPDQLVILDMKHGVEAKNYEEIAKVEKLKPLEVE LRRLEDLSESIVNDFAYMKKREEEMRDTNESTNTRVLYFSIFSMFCLIGLATWQVFYLRRFFKAKKLIE

## 132/2682 FIGURE 126A

AGAGCGAGCAGGGGAGAGCCAGTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCCTTCCCAAAAAACAAAAACAGAAAAACCCTTTT CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCCTGCAGAACCTGCTCACCATCGAGGAGC GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCCTGGCCTCCA AACTCAAAGAGACCAGCCGGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACTCCATCAAGCCTCAGGAGC TGCTGGAGTGGGAACTGGTGGTGCTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  $\tt ATATCGACCTG\underline{\textbf{T}GA} GGATGCCAGTTGGGCCGAAAGAGAGAGAGGCGCGTCCATAATCTGGTCTCTTCTTCTTGGG$ CTTTTAGAAGTGAGAGAAAAAGGTCCTACGAAAACGGAATAATAAAAAGCATTTGGTGCCTATTTGAAGTACAGC ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA ATGAGCTAGCACATACACCCCCTTGTAGTATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTG CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGGAAGGAGTACAAAACAATCTCTCAAC ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTTCTTC TTAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCCATT CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC TACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCTGCTGACATTCCCATCACAACATTCCTCA GACAAGCCTGTAAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAACAATCTA TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTT TTATAATATTATTTTACTGCTTAAATTCCAAGTCCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA TTTTTTTTTTTCCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT AACTACAAAAGGCAATGATTCACGCTTTTGTTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATA CATTGAACCAAGGGATCCTCCCCTCCAAGGCAGACGTTCAGTACAAACATTTATGCGGTAGGCTCAGATGT CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA TCTTGGAGCTTTTTCAAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCCTCCGTCTTT

## 133/2682 FIGURE 126B

CCCCTCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCTCTGTCTCAAACTGCGCAGGCAAGCACTATGC AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACTGAATTGGCAGGATAAGAAAAAT AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGCTGCTTCTCTACAGAGGTGAAATTCCAGATG AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG ACAGTCTGTAACTTTCCACTCTTCCTGTAGTCCCGAGGCCCCTGGGTCCTTCTAGCTTTTCTCTTTCCCATCCTT GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTTAGTCTCTTTGGTAGGAGTTTTGTTCCA ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTTGTTTCTATCTCGTCTTTACTTCCATCTGTT TGTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC AAATCCTAGGGGGAAGAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCAT GCCTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAATAGACTTGCACCTTATGTCATGTAAATAATTGA TTGGCTTCTAAGCCAAAAGGATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA CAAGAGGATATTTATTACTTCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA TTTCAGGCACAACGATACTACATTCGTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCCT TGAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAGAGGTCTTATCTGTTCAGTGTTAAGTGAT TTAAAAAAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT GCTATTTGGACAATAAACTCACCTTGACCT

# 134/2682 FIGURE 127

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

## 135/2682 FIGURE 128A

TGTGGCTGTGACCTGGCACAAGGGGGCTTCTTCATAAAGAACGGAGGAGTATCTCTGCACCCTGGACTACCAGCGG **ATGTACGGGACACGCTGCCATGGCTGTGGGGAGTTCGTGGAGGGCGAAGTGGTGACTGCTCTGGGCAAGACCTAC** CATCCCAATTGCTTTGCTACTATCTGCAAGCGCCCGTTTCCACCCGGAGACCGAGTCACATTCAATGGGAGA GGCTGCGGAAGAGATATCAAGAACGGGCAGGCGCTGCTGGCGCTGGATAAGCAGTGGCACTTGGGGTGCTTTAAA  ${\tt TGCAAGTCCTGCGGGAAGGTCCTCACCGGGGAGTACATCAGCAAGGATGGTGCTCCGTACTGTGAAAAGGACTAC}$  ${\tt CAGGGACTCTTTGGGGTGAAATGTGAGGCGTGTCACCAGTTTATCACAGGGAAAGTCCTGGAGGCAGGTGACAAA}$ CATTACCACCCCAGCTGTGCACGATGCAGCAGATGCAACCAGATGTTCACAGAAGGAGAGAAATGTATCTTCAA GGCTCCACCGTTTGGCATCCCGACTGTAAGCAATCTACGAAGACCGAGGAAAAGCTGCGGCCTACCAGGACATCC AATGAGATCCTGGATTACAAGGATTTAGCAGCCATTCCGAAGGTCAAGGCAATTTATGACATTGAACGTCCAGAT CTTATTACCTATGAGCCTTTCTACACTTCGGGCTATGATGACAAACAGGAGAGACAGAGCCTTGGAGAGTCTCCG AGGACTTTGTCTCCTACTCCATCAGCAGAAGGGTACCAGGATGTTCGGGATCGATGATCCATCGGTCCACGAGC CAGGGCTCCATCAACTCCCCTGTGTACAGCCGCCACAGCTACACTCCAACCACCGTCCCGCTCTCCCCAGCATTTC CACAGACCTGGCAATGAGCCGTCCAGCGGCCGGAACTCCCCTCTCCCTTACCGGCCAGACAGCCGCCCTCTAACT CCAACTTACGCTCAGGCCCCTAAACATTTCCATGTTCCAGATCAAGGAATCAACATTTACCGAAAGCCACCCATC TACAAACAGCATGCTGCCTTGGCAGCCCAGAGCAAGTCCTCAGAAGATATCATCAAGTTTTCCAAGTTCCCAGCA GCCCAGGCACCAGACCCCAGCGAGACACCAGAGATTGAGACGGACCACTGGCCTGGTCCCCCCTCATTTGCTGTC ATAGGACCTGACATGAAACGCAGATCTAGTGGCAGAGAGGAGATGATGAGGAACTTCTGAGACGTCGGCAGCTT CGGGAAAGGTCATCTCTGTTAGCCAGTCGCTACGATTCTCCCATCAACTCAGCTTCACATATTCCATCATAAA ACTGCATCTCCCCTGGCTATGGAAGAAATGGGCTTCACCGGCCTGTTTCTACCGACTTCGCTCAGTATAACAGC TATGGGGATGTCAGCGGGGGAGTGCGAGATTACCAGACACTCCCAGATGGCCACATGCCTGCAATGAGAATGGAC CGAGGAGTGTCTATGCCCAACATGTTGGAACCAAAGATATTTCCATATGAAATGCTCATGGTGACCAACAGAGGG CGAAACAAAATCCTCAGAGAGGTGGACAGAACCAGGCTGGAGCGCCACTTAGCCCCTGAAGTGTTTCGGGAAATC TTTGGAATGTCCATACAGGAGTTTGACAGGTTACCTCTTTGGAGACGCAACGACATGAAGAAAAAAGCAAAAACTC TTC<u>TAA</u>GTCCCACTCGTGAATGGCAATTAGAGAAAGGACTGACAGTGGCGGTGCCCCATAGGATGTCATATTGAG GCCCAAACTTGATTGGAGAATTTGCAAACTACCGTCGCTCAGCAACACCCAAAAAGAGAAAGTCTGGTTAAAACAC CATGAGTCAAATGTCGGGCCAGCCAACAGTAACACTTGCCAAGAAGCATGGCGTAGAAATTTCTATGTTCCGAAA CACAGAGTAGTGTCCACATGTGACCTTTTCACATTACCTTATGTATACAACAGGAGCTGCGTTGTTTTCTTCTTT TTCTTTTCCTTTATCTGTTGTCCAACAACAGTGCTGACTGTCCGGATAAGAGCTGGCAAGTGCCCTTAGGATGCC AGTGAGGGGTCTGTCCATGGGGTGGCAGTGATTTCACACCCGCCTTTCTTGAATGGCTTCGTGTTACTCAGCCGT GCCCTGGCAGGAATGGAACTCCATCAGGGAACAGGCCAGCTCTGTTTGAATGGGGTGAAAAAACAGCAAAATTAAT **AACTGTTCAAAAGCAAAAGAGAAGGAACAGGAATGAAAGGAAACCTTCCCTTAACTCTTTCTGCTTCCCATAGCA** GGTCTGGTTCCTGCTCCCCGCCTAGGACAGGAGCTGTCTGGAGCTCCACCTTTGCAAAGAAAAGAAAAACACAAA TTGCCCCCAGATTGGCCCAGTGGCATGCCATTAGGTGATTTŢGCGTAGGGGCCATATCATTCATGGCCAAAAAAA ACCAAAAAGCAAAAAACAAAACCAAGTCCCATGTCCTACTGACTCTAGTTCTTCCAGTCGTTATCCTCTGCTGTC GAAAGACATGTTTTTCTCTTTTAAATCTCTGCAACTCCAAAGTAGACTCCTTCGAACGTATTTAATTTTGGCCTTT TTTTGTGAGCATGCATGTGCTTTTTAATTTCTGCTTGAATGTTTGTCCTGCTGTGTTGCAGCTTCTAAAGACATT TCAGAGCATCTCACGAGAGTCCCTCAGGCTCTGCAACACTAGATTCGAATATGAGCCTAGGGTTTCCCCAACACG TGCGTGCATATGAAACCACATCATGATTCCCGACGTGAGTTAGATGAGGGAGAGTTTGTGTAACTCCACACCCAG GAGGGTAAGCCACTTTATTATCATGCTTTGGGGCTGTGCTTAAGAATTTAAGCTCTGTTTTAAAGCCGAAGAAGA

## 136/2682 FIGURE 128B

AAACATTTGAATTTACCTTCATATGCCACTAAGAACAAAAGCTCTGAAGTTCTTCCTGCTGGCACCAAATATTAG GATTACAAGCTGTCTCTCTGACACCAGTGGTAAAAAAGCAAGTAGAATAGTTTCTGAGTCTGTGTTGCAGCCTCT GACACGTGGCTCACTGCTCATTTGGGGGGTGGAATGAACAGTCACTGTTCTATAGCATCCTCCTGTGCTCTTA TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTACTAACATGTTTAGCAAATGGCTCTGACAGGGTGG CCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTGCAGTTTGCAGTTTAGCCTTTGGTGTCTCA AATGCCTGGGTGTCCTCATCCTTGCTTTACTCTGGAAAGTGTGGGGATGGAGAGGATGGTGCATTTCCAGTGCTT CCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTGGCTGGTGGAGAGATTTTTTTCATTATGGA GCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCACCCAGACATGTGCAGATGAAAATGTCAATAT **AAGAAAATCAAGGTATTTGGGAAACATGGGCATAATCAGGTAGTTTTGCTAAAATTCCTCTTCCTTGGTCTACA** GAGACTAGGAGTTAAGGGGCCTGCCTAAGATTGCAGTGATAAAGAACTGAACCCTAAATCAGCTCCCACTAATGA AAGTACCATATGAGTTCATTTAAACTGCACCTTGCAGAAATGCATTGCCAGAAAGCACCAGTAGCCTCCTATCTG CAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCATTGGAAACCATAATGCAGAGTGGGCCCCCTACTCCATTTC CCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGGTTCCTGCTAACTGCCAGATTGAATGTGTG GGCTAGAATGCCTGCGCATTTAGTTAAACTGGGCTCAGCATGCTTGTCCTCAAAATGTCCATCCTGGTCACAGCA CACAAGATGGCTATTGGTCTGCTTTTACCCTACCCTGTACTATACATGAAAATTCCAGTTATTAACACACTCAAA CTGGTGGAGCTTGTTCACCCTAGGAAGGGGATTGTATATATGGCAGGCTTCCCTGGTGCCGATGTAAAGGGCTAC ATTTGGGAACATTTGACTTCCTTGGGACTCTTAAGTGCATACTGATGGCATGAAGTAAAAGGGGCCTCAATGATG ATAGGAAAATCAGTTCTTTTAAAATTTCTTCAAGAAAATCCAGGCTATCACATAGTCTTTCTGTGTGACTTATTA TGTTCTTAATATGACGTGTTCAATAACTTCACATAAACTTCCTGTTCTCCAAAAACCTCAAAGAGATAGAGTTAAT GAGTTGTTGTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTCATGGGCTCTAGCATCTACTCCGCTACCCAATT TCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGTCTAGCTGGCAATGTTTCTAAAAACTTTCACTGGATT TCTTTAGACATTGAAGCAAACATTTTTTTCTAAGAATTGCTTCTCAGATGATGATATCAAATGTATATGCTTTTG CAAGTTTGAAAAGTTCAAATTAACCACTTTTGACTAGGTAAGTCTTTCTAAAAACCATTTAAAGCTAACTGGGTC TTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTTGGGTGCTCACAGAACCCTTTTCCTGACTC TCATGGAAGATGGTGGAAGGAAAATAGACTGTCTCATCAACCCTCCTGTGTCCTCTGAAGCAATCTCAGTTTTTA TTAACCACCTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTAATCTGTACTTCCTATGCCAGCCTCAATTT TATTTGATTTTAAAATTATTCTCTTCTAACCAATGAAGTGTTTGTCAGTATGCCCCAAAGCTTGCTCTTTTGTG CTCCCTTTTGAATAACTTTCTATCCAGAAAAAGAGTTATTTGGGACTTGAGATTTGCAGTGATACCAACTTATA TTTAATCACTGTTTATTTTTCTGTTTGCGGCCCAGGAAGCAGTGGGAGGTGGTGGCAGATATGCTTTGCATATGG ATTGTTATGTTTTATTTGGGCAAGTTTAATCATGGAAAACTCAAAAAGAAGGGGGGAAATGGTCAGTTTAAGCC AAAAGAAACTTTCTAAACAATGTATAGGTACACAGCAAAATTAAACAAATCCAACAATTTCTGAAGCTTAGTGTA ATTGAGTGGTGGTTGTTATTCAATAAATTATTCCCAAAAGTGTTTCTCCTAAGAGTGCAGTTCCCATGAGTCAC ACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCATTGTCCACAAAACTGATGTTCTTTTGGGGTTT TATGTACAGACTTGTCCAATCATGTGTGTGTGTCCTGCGAGTTGCTGATGACTCCGCATTGAAGCTCTCTGAGTT CTTTGATTTTAAGTTGGGTTTATGGAATTTTTTCAAATGTTGGAAGGCGTGTGGTTCTTCCTGCCCTCCCCC TTTTGGAAATATGAAAGCAAATGTTTAGAAGAATTCCTTTTGAAAAGCTGTGTCGTGTTCCCTGTGAAACTGAGC AGGTGTGTGTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGAGGAGGTGGCCCTGCCGGCTCCGCGCTGCT ATCACTGTCATACTCACAACTTCGTGAATAAAGTTGTGTGCTTTATTCGTC

## 137/2682 FIGURE 129

MYGTRCHGCGEFVEGEVVTALGKTYHPNCFACTICKRPFPPGDRVTFNGRDCLCQLCAQPMSSSPKETTFSSNCA
GCGRDIKNGQALLALDKQWHLGCFKCKSCGKVLTGEYISKDGAPYCEKDYQGLFGVKCEACHQFITGKVLEAGDK
HYHPSCARCSRCNQMFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVD
NEILDYKDLAAIPKVKAIYDIERPDLITYEPFYTSGYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTS
QGSINSPVYSRHSYTPTTSRSPQHFHRPGNEPSSGRNSPLPYRPDSLPLTPTYAQAPKHFHVPDQGINIYRKPPI
YKQHRALAAQSKSSEDIIKFSKFPAAQAPDPSETPKIETDHWPGPPSFAVVGPDMKRRSSGREEDDEELLRRRQL
QEEQLMKLNSGLGQLILKEEMEKESRERSSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNS
YGDVSGGVRDYQTLPDGHMPAMRMDRGVSMPNMLEPKIFPYEMLMVTNRGRNKILREVDRTRLERHLAPEVFREI
FGMSIQEFDRLPLWRRNDMKKKAKLF

#### 138/2682 FIGURE 130A

CACGAGGCAGCACTCTCTCGTCGCTTCGGCCAGTGTGTCGGGCTGGGCCCTGACAAGCCACCTGAGGAGAGGCCT CGGAGCCGGGCCCGGCGATTGCCGCCCGCTTCTCTAGTCTCACGAGGGGTTTCCCGCCTCGCACCC ATAAGTTCTGAACGTCGAAAAAGAAAAGTCTCGAGATGCAGCCAGATCTCGGCGAAGTAAAGAATCTGAAGTTTTT TATGAGCTTGCTCATCAGTTGCCACTTCCACATAATGTGAGTTCGCATCTTGATAAGGCCTCTGTGATGAGGCTT ACCATCAGCTATTTGCGTGTGAGGAAACTTCTGGATGCTGGTGATTTGGATATTGAAGATGACATGAAAGCACAG ATGAATTGCTTTTATTTGAAAGCCTTGGATGGTTTTGTTATGGTTCTCACAGATGATGGTGACATGATTTACATT CCATGTGACCATGAGGAAATGAGAAATGCTTACACACAGAAATGGCCTTGTGAAAAAAGGGTAAAGAACAAAAAC ACACAGCGAAGCTTTTTTCTCAGAATGAAGTGTACCCTAACTAGCCGAGGAAGAACTATGAACATAAAGTCTGCA AAGAAACCACCTATGACCTGCTTGGTGCTGATTTGTGAACCCATTCCTCACCCATCAAATATTGAAATTCCTTTA GATAGCAAGACTTTCCTCAGTCGACACAGCCTGGATATGAAATTTTCTTATTGTGATGAAAGAATTACCGAATTG ATGGGATATGAGCCAGAAGAACTTTTAGGCCGCTCAATTTATGAATATTATCATGCTTTGGACTCTGATCATCTG ACCAAAACTCATCATGATATGTTTACTAAAGGACAAGTCACCACAGGACAGTACAGGATGCTTGCCAAAAGAGGT GGATATGTCTGGGTTGAAACTCAAGCAACTGTCATATATAACACCAAGAATTCTCAACCACAGTGCATTGTATGT CCGGTTGAATCTTCAGATATGAAAATGACTCAGCTATTCACCAAAGTTGAATCAGAAGATACAAGTAGCCTCTTT GACAAACTTAAGAAGGAACCTGATGCTTTAACTTTGCTGGCCCCAGCCGCTGGAGACACAATCATATCTTTAGAT TTTGGCAGCAACGACACAGAAACTGATGACCAGCAACTTGAGGAAGTACCATTATATAATGATGTAATGCTCCCC TCACCCAACGAAAAATTACAGAATATAAATTTGGCAATGTCTCCATTACCCACCGCTGAAACGCCAAAGCCACTT CGAAGTAGTGCTGACCCTGCACTCAATCAAGAAGTTGCATTAAAATTAGAACCAAATCCAGAGTCACTGGAACTT TCTTTTACCATGCCCCAGATTCAGGATCAGACACCTAGTCCTTCCGATGGAAGCACTAGACAAAGTTCACCTGAG CCTAATAGTCCCAGTGAATATTGTTTTTATGTGGATAGTGATATGGTCAATGAATTCAAGTTGGAATTGGTAGAA AAACTTTTTGCTGAAGACACAGAAGCAAAGAACCCATTTTCTACTCAGGACACAGATTTAGACTTGGAGATGTTA GCTCCCTATATCCCAATGGATGATGACTTCCAGTTACGTTCCTTCGATCAGTTGTCACCATTAGAAAGCAGTTCC GCAAGCCCTGAAAGCGCAAGTCCTCAAAGCACAGTTACAGTATTCCAGCAGACTCAAATACAAGAACCTACTGCT AATGCCACCACTACCACTGCCACCACTGATGAATTAAAAACAGTGACAAAAGACCGTATGGAAGACATTAAAATA TTGATTGCATCTCCATCTCCTACCCACATACATAAAGAAACTACTAGTGCCACATCATCACCATATAGAGATACT CCTAACGTGTTATCTGTCGCTTTGAGTCAAAGAACTACAGTTCCTGAGGAAGAACTAAATCCAAAGATACTAGCT TTGCAGAATGCTCAGAGAAAGCGAAAAATGGAACATGATGGTTCACTTTTTCAAGCAGTAGGAATTGGAACATTA TTACAGCAGCCAGACGATCATGCAGCTACTACATCACTTTCTTGGAAACGTGTAAAAGGATGCAAATCTAGTGAA GATGAAAGTGGATTACCACAGCTGACCAGTTATGATTGTGAAGTTAATGCTCCTATACAAGGCAGCAGAAACCTA  $\tt CTGCAGGGTGAAGAATTACTCAGAGCTTTGGATCAAGTTAACT{GA}GCTTTTTCTTAATTTCATTCCTTTTTTTGG$ ACACTGGTGGCTCACTACCTAAAGCAGTCTATTTATATTTTCTACATCTAATTTTAGAAGCCTGGCTACAATACT TTAATGCTGGATCACAGACAGCTCATTTTCTCAGTTTTTTTGGTATTTAAACCATTGCATTGCAGTAGCATCATTT TAAAAAATGCACCTTTTTATTTATTTTTTTTGGCTAGGGAGTTTATCCCTTTTTCGAATTATTTTTAAGAAGAT GCCAATATAATTTTTGTAAGAAGGCAGTAACCTTTCATCATGATCATAGGCAGTTGAAAAATTTTTACACCTTTT TTTTCACATTTTACATAAATAATAATGCTTTGCCAGCAGTACGTGGTAGCCACAATTGCACAATATTTTTCTTA CTATGAAATTGTTAAACCTGGAACATGACATTGTTAATCATATAATAATGATTCTTAAATGCTGTATGGTTTATT ATAAAATTCTCAATTCAGAGAAATCATCTGATGTTTCTATAGTCACTTTGCCAGCTCAAAAGAAAACAATACCCT ATGTAGTTGTGGAAGTTTATGCTAATATTGTGTAACTGATATTAAACCTAAATGTTCTGCCTACCCTGTTGGTAT

# 139/2682 FIGURE 130B

## 140/2682 FIGURE 131

MEGAGGANDKKKISSERRKEKSRDAARSRRSKESEVFYELAHQLPLPHNVSSHLDKASVMRLTISYLRVRKLLDA
GDLDIEDDMKAQMNCFYLKALDGFVMVLTDDGDMIYISDNVNKYMGLTQFELTGHSVFDFTHPCDHEEMREMLTH
RNGLVKKGKEQNTQRSFFLRMKCTLTSRGRTMNIKSATWKVLHCTGHIHVYDTNSNQPQCGYKKPPMTCLVLICE
PIPHPSNIEIPLDSKTFLSRHSLDMKFSYCDERITELMGYEPEELLGRSIYEYYHALDSDHLTKTHHDMFTKGQV
TTGQYRMLAKRGGYVWVETQATVIYNTKNSQPQCIVCVNYVVSGIIQHDLIFSLQQTECVLKPVESSDMKMTQLF
TKVESEDTSSLFDKLKKEPDALTLLAPAAGDTIISLDFGSNDTETDDQQLEEVPLYNDVMLPSPNEKLQNINLAM
SPLPTAETPKPLRSSADPALNQEVALKLEPNPESLELSFTMPQIQDQTPSPSDGSTRQSSPEPNSPSEYCFYVDS
DMVNEFKLELVEKLFAEDTEAKNPFSTQDTDLDLEMLAPYIPMDDDFQLRSFDQLSPLESSSASPESASPQSTVT
VFQQTQIQEPTANATTTTATTDELKTVTKDRMEDIKILIASPSPTHIHKETTSATSSPYRDTQSRTASPNRAGKG
VIEQTEKSHPRSPNVLSVALSQRTTVPEEELNPKILALQNAQRKRKMEHDGSLFQAVGIGTLLQQPDDHAATTSL
SWKRVKGCKSSEQNGMEQKTIILIPSDLACRLLGQSMDESGLPQLTSYDCEVNAPIQGSRNLLQGEELLRALDQV

# FIGURE 132

GCTTAGTGTAACCAGCGGCGTATATTTTTTAGGCGCCTTTTCGAAAACCTAGTAGTTAATATTCATTTGTTTAAA TCTTATTTTATTTTTAAGCTCAAACTGCTTAAGAATACCTTAATTCCTTAAAGTGAAATAATTTTTTGCAAAGGG GTTTCCTCGATTTGGAGCTTTTTTTTTTCTTCCACCGTCATTTCTAACTCTTAAAACCAACTCAGTTCCATCATCG TGATGTTCAAGAAGATCAAGTCTTTTGAGGTGGTCTTTAACGACCCTGAAAAGGTGTACGGCAGTGGCGAGAGGG TGGCTGGCCGGTGATAGTGGAGGTGTGTGAAGTTACTCGTGTCAAAGCCGTTAGGATCCTGGCTTGCGGAGTGG CTAAAGTGCTTTGGATGCAGGGATCCCAGCAGTGCAAACAGACTTCGGAGTACCTGCGCTATGAAGACACGCTTC TTCTGGAAGACCAGCCAACAGGTGAGAATGAGATGGTGATCATGAGACCTGGAAACAAATATGAGTACAAGTTCG GCTTTGAGCTTCCTCAGGGGCCTCTGGGAACATCCTTCAAAGGAAAATATGGGTGTGTAGACTACTGGGTGAAGG CTTTTCTTGACCGCCCGAGCCAGCCAACTCAAGAGACAAAGAAAAACTTTGAAGTAGTGGATCTGGTGGATGTCA AGAATACATGTTCCCGAATTGTGGTCCCCAAAGCTGCCATTGTGGCCCACACTTACCTTGCCAATGGCCAGA  ${\tt CCAAGGTGCTGACTCAGAAGTTGTCATCAGTCAGAGGCAATCATATTATCTCAGGGACATGCGCATCATGGCGTG}$ GCAAGAGCCTTCGGGTTCAGAAGATCAGGCCTTCTATCCTGGGCTGCAACATCCTTCGAGTTGAATATTCCTTAC TGATCTATGTTAGCGTTCCTGGATCCAAGAAGGTCATCCTTGACCTGCCCCTGGTAATTGGCAGCAGATCAGGTC TAAGCAGCAGAACATCCAGCATGGCCAGCCGAACCAGCTCTGAGATGAGTTGGGTAGATCTGAACATCCCTGATA CCCCAGAAGCTCCTCCTGCTATATGGATGTCATTCCTGAAGATCACCGATTGGAGAGCCCAACAACTCCTCTGC CTTATACTGAGGTGGATCCCTGCATCCTCAACAACAATGTGCAGTGAGCATGTGGAAGAAAAGAAGCAGCTTTAC CTACTTGTTTCTTTTTGTCTCTCTCTCTGGACACTCACTTTTTCAGAGACTCAACAGTCTCGTCAATGGAGTGTG GGTCCACCTTAGCCTCTGACTTCCTAATGTAGGAGGTGGTCAGCAGGCAATCTCCTGGGCCTTAAAGGATGCGGA AGGCCCATCCATTTTCTCAGATCTCCTTGAAAATTGAGGCCTTTTCGATAGTTTCGGGTCAGGTAAAAATGGCCT CCTGGCGTAAGCTTTTCAAGGTTTTTTTGGAGGCTTTTTTGTAAATTGTGATAGGAACTTTGGACCTTGAACTTACG TATCATGTGGAGAAGAGCCAATTTAACAAACTAGGAAGATGAAAAGGGAAATTGTGGCCAAAACTTTGGGAAAAAG TACTTTAACCTGGCTTTTAAAGCAGTAGTAACTGCCCCACCAAAGGTCTTAAAAGCCATTTTTGGAGCCTATTGC ACTGTGTTCTCCTACTGCAAATATTTTCATATGGGAGGATGGTTTTCTCTTCATGTAAGTCCTTGGAATTGATTC TAAGGTGATGTTCTTAGCACTTTAATTCCTGTCAAATTTTTTGTTCTCCCCTTCTGCCATCTTAAATGTAAGCTG AAACTGGTCTACTGTGTCTCTAGGGTTAAGCCAAAAGACAAAAAAATTTTACTACTTTTGAGATTGCCCCAATG TACAGAATTATAAATTCTAACGCTTAAATCATGTGAAAGGGTTGCTGCTGTCAGCCTTGCCCACTGTGACTTCA AACCCAAGGAGGAACTCTTGATCAAGATGCCCAACCCTGTGATCAGAACCTCCAAATACTGCCATGAGAAACTAG AGGGCAGGTGTTCATAAAAGCCCTTTGAACCCCCTTCCTGCCCTGTGTTAGGAGATAGGGATATTGGCCCCTCAC TGCAGCTGCCAGCACTTGGTCAGTCACTCTCAGCCATAGCACTTTGTTCACTGTCCTGTGTCAGAGCACTGAGCT ACCC

# 142/2682 FIGURE 133

MVMFKKIKSFEVVFNDPEKVYGSGERVAGRVIVEVCEVTRVKAVRILACGVAKVLWMQGSQQCKQTSEYLRYEDT LLLEDQPTGENEMVIMRPGNKYEYKFGFELPQGPLGTSFKGKYGCVDYWVKAFLDRPSQPTQETKKNFEVVDLVD VNTPDLMAPVSAKKEKKVSCMFIPDGRVSVSARIDRKGFCEGDEISIHADFENTCSRIVVPKAAIVARHTYLANG QTKVLTQKLSSVRGNHIISGTCASWRGKSLRVQKIRPSILGCNILRVEYSLLIYVSVPGSKKVILDLPLVIGSRS GLSSRTSSMASRTSSEMSWVDLNIPDTPEAPPCYMDVIPEDHRLESPTTPLLDDMDGSQDSPIFMYAPEFKFMPP PTYTEVDPCILNNNVQ

AGTGTGAAATCTTCAGAGAAGAATTTCTCTTTAGTTCTTTGCAAGAAGGTAGAGATAAAGACACTTTTTCAAAAA TGGCAATGGTATCAGAATTCCTCAAGCAGGCCTGGTTTATTGAAAATGAAGAGCAGGAATATGTTCAAACTGTGA AGCGTCAACAGATCAAAGCAGCATATCTCCAGGAAACAGGAAAGCCCCTGGATGAAACACTTAAGAAAGCCCTTA CAGGTCACCTTGAGGAGGTTGTTTTAGCTCTGCTAAAAACTCCAGCGCAATTTGATGCTGATGAACTTCGTGCTG CCATGAAGGGCCTTGGAACTGATGAAGATACTCTAATTGAGATTTTGGCATCAAGAACTAACAAAGAAATCAGAG ACATTAACAGGGTCTACAGAGAGGAACTGAAGAGAGATCTGGCCAAAGACATAACCTCAGACACATCTGGAGATT  ${\tt CAGATGCCAGGGCCTTGTATGAAGCAGGAGAAAGGAGAAAGGGGACAGACGTAAACGTGTTCAATACCATCCTTA}$ CCACCAGAAGCTATCCACAACTTCGCAGAGTGTTTCAGAAATACACCAAGTACAGTAAGCATGACATGAACAAAG TTCTGGACCTGGAGTTGAAAGGTGACATTGAGAAATGCCTCACAGCTATCGTGAAGTGCGCCACAAGCAAACCAG CTTTCTTTGCAGAGAGCTTCATCAAGCCATGAAAGGTGTTGGAACTCGCCATAAGGCATTGATCAGGATTATGG TTTCCCGTTCTGAAATTGACATGAATGATATCAAAGCATTCTATCAGAAGATGTATGGTATCTCCCTTTGCCAAG CCATCCTGGATGAAACCAAAGGAGATTATGAGAAAATCCTGGTGGCTCTTTGTGGAGGAAAC**TAA**ACATTCCCTT GATGGTCTCAAGCTATGATCAGAAGACTTTAATTATATTTTTCATCCTATAAGCTTAAATAGGAAAGTTTCTTC **AACAGGATTACAGTGTAGCTACCTACATGCTGAAAAATATAGCCTTTAAATCATTTTTATATAACTCTGTAT** AATAGAGATAAGTCCATTTTTTAAAAATGTTTTCCCCAAACCATAAAACCCTATACAAGTTGTTCTAGTAACAAT ACATGAGAAAGATGTCTATGTAGCTGAAAATAAAATGACGTCACAAGAC

## 144/2682 FIGURE 135

MAMVSEFLKQAWFIENEEQEYVQTVKSSKGGPGSAVSPYPTFNPSSDVAALHKAIMVKGVDEATIIDILTKRNNA QRQQIKAAYLQETGKPLDETLKKALTGHLEEVVLALLKTPAQFDADELRAAMKGLGTDEDTLIEILASRTNKEIR DINRVYREELKRDLAKDITSDTSGDFRNALLSLAKGDRSEDFGVNEDLADSDARALYEAGERRKGTDVNVFNTIL TTRSYPQLRRVFQKYTKYSKHDMNKVLDLELKGDIEKCLTAIVKCATSKPAFFAEKLHQAMKGVGTRHKALIRIM VSRSEIDMNDIKAFYQKMYGISLCQAILDETKGDYEKILVALCGGN

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA CTTAACCTCATTTCTCTTTCAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCCAGGCCGTCAAGA CTTGAGTTCTGCCTCGCTTCCCGGCGCGGTCGCAGCCCTCAGCCCACTTAGGATA<u>ATG</u>GCGACAGCTGAGGTACT GAACATTGGTAAAAAATTATATGAGGGTAAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCCT AAATAAAATCACCAGTTGTATTTTCAGTTATTACAGGAAGCAGGTATTAAAACTGCCTTCACCAGAAAATGTGG GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTCAAGGA TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTTGATGTAACCACCAAAGAAATTGTTCTTGCTGA TGTTATTGACAATGATTCCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAACAGAAAGACAAACAGTCTTATCG GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA AAAAATCAAGAAGGCCTGTGGAAATTTTGGCATTCCATGTGAACTTCGAGTAACATCTGCGCATAAAGGACCAGA TAATGGTTTGGGACCAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCCTCCCCTCACACCAGACTG GGGAGTTCAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG GAACACATGGATTTCCTTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTA<u>TAA</u>GAAAGAATGCCATTGAA TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC AGTATTGGTGGTCACTACTATTGAGTTTCTTCCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAAACTG  $\tt CCCAGGCTGGAGTGCAGTGATCTCAGTTCACTGCTGCTTTCCCTCCTGGGCTCAAGCAGTTCTCCCACCT$ CTCACTATGTCACCCAGGTTCGTCTCAAACTCCTGAACCCTAGTAATTCTCCTATCTCAGCCTCCCAAAGTGCTA GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT TGTTAATTTCTGATTAACCCTTGAATTTACCGTCTTCTCATCCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT CAACATTATCCTGATCTAGACAGCCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC AATAAACTCTCTTTTGCACCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGCACA CATAAAACTTACCAACAGATTTCATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAGAATT AGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC CGTGATGACAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAAGGGGGAA AAAAAAATTGCTGATGTGACCCATGAAGGGAACTCATTTTCCTCGTAATTTTGGACTGCCACACATTGGTACCT TTAGTTCTCTGAAGGCCCACGTTTTTATCATTAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTCGCTGTCCA CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA AATTATAAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAAAGGACTTAGAA GATTAAAAAAAAAAAAAAAAAAAA

# 146/2682 FIGURE 137

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT AFTRKCGETAFIAPQCEMIPIEWVCRRIATGSFLKRNPGVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ KDKQSYRDLKEVTPEGLQMVKKNFEWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELRVT SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

AAGAAAAAATAGGCCTGGTTGCCAXATTAAGGTCCCCTGGGCTATTTTAAACCGGATTTGGATACCXAGGTCTT GGTTTTAATAGCAGTATTGAATTTGTAAGCTTAGTAGTTGCAGAAATTGAACACTAGGTGGCACTCAGTTATCTT GTTTTGATCATATGCATGTATGTAGAATATTTTTGCAGAGCAGAAAGATTATGTTAGAAGTGTGATTTTTATTTT CATAGCAACTTGTAAAAAATAAATACTTGTTGAAAAGCCTTTTTCAACATATCCCTAAGCTAAGGGAAGAGGAA TCATGCTGCAGAATATGTTATACCCTTATTTTGTGTTAAGGATATATTTTATTATGTGAATG  $\tt TTTTTGTTTTTGCTTTTTTGGGAATTAGCTTTACTGGTAACTTCCTTATTTAGTTTT\underline{\textbf{TAG}} \texttt{TGGTCAA}$ CTCTAATAAAATGAAACTAGGGCTGAGCTAGTTAGCCCTCACTAGCCAAACTGAAACTCTATGCAACATTAAAAG AGGGTAATAAACCTTCACATGGCTTCAAAAGGAAAACAAGCAAATCTTCTCTAATCTACTCTTACTATAATTTCC TAAGTGTACACCAAACTCTGGATTTAAAAATCTGAAGTACTATAGAACATTAAGTTGAAGAATGGAAATTAAGAG TACGTATTCATGGTTTATATTTCTTATTCTATGGAGTTCGTGAACACATCTAGGTGGAATGCATCTGAGACTAAG GGCTGGTTTTTAATCCTCATAAGAAACCAGCCTTGAAGAATTAACAATTCTCTTCATTGGTATTCTAAACCTCCT ACTAAGAATGTTTGAACTTTGCATATTTGATATAGTTCCTGGTAGGAATAGCACAGCTCAAACATTAGTTTTTCT ACTTACCTCCTCTAACACGTGGTTTGTCTGGAGAGTTTCTAAAAATTCAGCTATAACCCCAGTTCATGTATTTAC TGGTGATTGTTCTTGCTGAGGTAGTAACAGCCCAATCTTGGGCTGTTAAATCCTAGGAAATCTCGAATCATAGTG ATTAAAATAGTTGGGGTAAAGTTGTAGCTTATATGCAATACTACTTGGAGGAATTCTTCTACTAATTTGTATTTA TTTTTGCTTATACACTCTGATTCCTATAATACAGTGCTATAAGCTATGCACAGAAAATAAAATGTTTGAAATCCA 

# 148/2682 FIGURE 139

MVLFLFFVFVFCLYWELALLVTSLFSF

# 149/2682 FIGURE 140A

CGCGGGTCTGTGGAGAGCCGGGTGCGAGCGGCGGCAGCACGAGGGGAAAAGAGCTGAGCGGAGACCAAAGTCAGC CGGGAGACAGTGGGTCTGTGAGAGACCGAATAGAGGGGCCTGGGGCCACGAGCGCCATTGACAAGCA**ATC**GGGAAG AAACAGAAAACAAGAGCGAAGACAGCACCAAGGATGACATTGATCTTGATGCCTTGGCTGCAGAAATAGAAGGA GATGAAGATGATATCCTGAAAGAACTGGAAGAATTGTCTTTGGAAGCTCAAGGCATCAAAGCTGACAGAGAAACT AAAAACAGAGTTTTGATGATAATGATAGCGAAGAATTGGAAGATAAAGATTCAAAAATCAAAAAAGACTGCAAAA CCGAAAGTGGAAATGTACTCTGGGAGTGATGATGATGATTTTTAACAAACTTCCTAAAAAAGCTAAAGGGAAA GCTCAAAAATCAAATAAGAAGTGGGATGGGTCAGAGGAGGATGAGGATAACAGTAAAAAAATTAAAGAGCGTTCA CAGAAAAACAAGCCAGGTCCTAACATAGAAAGTGGGAATGAAGATGATGACGCCTCCTTCAAAATTAAGACAGTG AAAGAAAAGAAGAGTTAGAAACAGGTAAAAAGGATCAGAGTAAACAAAAGGAATCTCAAAGGAAATTTGAAGAA GAAACTGTAAAATCCAAAGTGACTGTTGATACTGGAGTAATTCCTGCCTCTGAAGAGAAAGCAGAGACTCCCACA GAGAAAGAGAAGAAAAAAGGACCTAGCAAAGCCACTGTTAAAGCTATGCAAGAAGCTCTGGCTAAGCTTAAAGAG GAAGAAGAAGACAGAAGAGAGAAGAAGAACGTATAAAACGGCTTGAAGAATTAGAAGCCAAGCGTAAAGAA GAAGGGAAACTTTTAACTAAATCCCAGAGAGAAGCCAGAGCCAGAGCCGAAGCTACTCTTAAACTGCTACAAGCT CAGGGTGTTGAAGTGCCATCAAAAGACTCTTTGCCAAAGAAGAGGCCAATTTATGAAGATAAAAAAGAGGAAAAAA ATACCACAGCAGCTAGAAAGTAAAGAAGTGTCTGAATCAATGGAATTATGTGCTGCTGTAGAAGTTATGGAACAA GGAGTACCAGAAAAGGAAGAGACACCACCTCCTGTTGAACCAGAAGAAGAAGAAGATACTGAGGATGCTGGATTG GATGATTGGGAAGCTATGGCCAGTGATGAGGAGACAGAAAAAGTAGAAGGAAACACAGTTCATATAGAAGTAAAA GAGGGAGAAGTGAAGGCAGTGAAGGTGATGAGGAAGATGAAAAGGTGTCAGATGAGAAGGATTCAGGGAAGACA TTAGATAAAAAGCCAAGTAAAGAAATGAGCTCAGATTCTGAATATGACTCTGATGATGATCGGACTAAAGAAGAA AGGGCTTATGACAAAGCAAAACGGAGGATTGAGAAACGGCGACTTGAACATAGTAAAAATGTAAACACCGAAAAG CTAAGAGCCCCTATTATCTGCGTACTTGGGCATGTGGACACAGGGAAGACAAAAATTCTAGATAAGCTCCGTCAC ACACATGTACAAGACGGTGAAGCAGGTGGTATCACAACAAATTTGGGCCACCAATGTTCCTCTTGAAGCTATT AATGAACAGACTAAGATGATTAAAAATTTTGATAGAGAGAATGTACGGATTCCAGGAATGCTAATTATTGATACT CCTGGGCATGAATCTTCAGTAATCTGAGAAATAGAGGAAGCTCTCTTTGTGACATTGCCATTTTAGTTGTTGAT ATTATGCATGGTTTGGAGCCCCAGACAATTGAGTCTATCAACCTTCTCAAAATCTAAAAAATGTCCCTTCATTGTT GCACTCAATAAGATTGATAGGTTATATGATTGGAAAAAGAGTCCTGACTCTGATGTGGCTGCTACTTTAAAGAAG CAGAAAAGAATACAAAAGATGAATTTGAGGAGCGAGCAAAGGCTATTATTGTAGAATTTGCACAGCAGGGTTTG GATGGCATGGGAAGTCTGATCTACCTTCTTGTAGAGTTAACTCAGACCATGTTGAGCAAGAGACTTGCACACTGT GAAGAGCTGAGAGCACAGGTGATGGAGGTTAAAGCTCTCCCGGGGATGGGCACCACTATAGATGTCATTTTGATC AATGGGCGTTTGAAGGAAGGAGATACAATCATTGTTCCTGGAGTAGAAGGGCCCATTGTAACTCAGATTCGAGGC CTCCTGTTACCTCCTCCTATGAAGGAATTACGAGTGAAGAACCAGTATGAAAAGCATAAAGAAGTAGAAGCAGCT CAGGGGGTAAAGATTCTTGGAAAAGACCTGGAGAAAACATTGGCTGGTTTACCCCTCCTTGTGGCTTATAAAGAA GATGAAATCCCTGTTCTTAAAGATGAATTGATCCATGAGTTAAAGCAGACACTAAATGCTATCAAATTAGAAGAA AAAGGAGTCTATGTCCAGGCATCTACACTGGGTTCTTTGGAAGCTCTACTGGAATTTCTGAAAACATCAGAAGTG CCCTATGCAGGAATTAACATTGGCCCAGTGCATAAAAAAGATGTTATGAAGGCTTCAGTGATGTTGGAACATGAC CCTCAGTATGCAGTAATTTTGGCCTTCGATGTGAGAATTGAACGAGATGCACAAGAAATGGCTGATAGTTTAGGA GTTAGAATTTTTAGTGCAGAAATTATTTATCATTTATTTGATGCCTTTACAAAATATAGACAAGACTACAAGAAA TCTCGAGATCCGATAGTGATGGGGGTGACGGTGGAAGCAGGTCAGGTGAAACAGGGGACACCCATGTGTGTCCCA AGCAAAAATTTTGTTGACATCGGAATAGTAACAAGTATTGAAATAAACCATAAACAAGTGGATGTTGCAAAAAAA

# 150/2682 FIGURE 140B

 ${\tt MGKKQKNKSEDSTKDDIDLDALAAEIEGAGAAKEQEPQKSKGKKKKEKKKQDFDEDDILKELEELSLEAQGIKAD}$ RETVAVKPTENNEEEFTSKDKKKKGQKGKKQSFDDNDSEELEDKDSKSKKTAKPKVEMYSGSDDDDDFNKLPKKA KGKAQKSNKKWDGSEEDEDNSKKIKERSRINSSGESGDESDEFLQSRKGQKKNQKNKPGPNIESGNEDDDASFKI KTVAQKKAEKKERERKKRDEEKAKLRKLKEKEELETGKKDQSKQKESQRKFEEETVKSKVTVDTGVIPASEEKAE TPTAAEDDNEGDKKKKDKKKKKGEKEEKEKKKKGPSKATVKAMQEALAKLKEEEEERQKREEEERIKRLEELEAK RKEEERLEQEKRERKKQKEKERKERLKKEGKLLTKSQREARARAEATLKLLQAQGVEVPSKDSLPKKRPIYEDKK RKKIPQQLESKEVSESMELCAAVEVMEQGVPEKEETPPPVEPEEEEDTEDAGLDDWEAMASDEETEKVEGNTVHI KEERAYDKAKRRIEKRRLEHSKNVNTEKLRAPIICVLGHVDTGKTKILDKLRHTHVQDGEAGGITQQIWATNVPL EAINEQTKMIKNFDRENVRIPGMLIIDTPGHESFSNLRNRGSSLCDIAILVVDIMHGLEPQTIESINLLKSKKCP FIVALNKIDRLYDWKKSPDSDVAATLKKQKKNTKDEFEERAKAIIVEFAQQGLNAALFYENKDPRTFVSLVPTSA HTGDGMGSLIYLLVELTQTMLSKRLAHCEELRAQVMEVKALPGMGTTIDVILINGRLKEGDTIIVPGVEGPIVTQ IRGLLLPPPMKELRVKNQYEKHKEVEAAQGVKILGKDLEKTLAGLPLLVAYKEDEIPVLKDELIHELKQTLNAIK  $\cdot$ LEEKGVYVQASTLGSLEALLEFLKTSEVPYAGINIGPVHKKDVMKASVMLEHDPQYAVILAFDVRIERDAQEMAD SLGVRIFSAEIIYHLFDAFTKYRQDYKKQKQEEFKHIAVFPCKIKILPQYIFNSRDPIVMGVTVEAGQVKQGTPM CVPSKNFVDIGIVTSIEINHKQVDVAKKGQEVCVKIEPIPGESPKMFGRHFEATDILVSKISRQSIDALKDWFRD EMOKSDWQLIVELKKVFEII ·

CCCGGACGTGCGGCTCCCCTCGGCCTCCTCGCC<u>ATG</u>GACGCGGACGACTCCCGGGCCCCCAAGGGCTCCTTGCGG AAGTTCCTGGAGCACCTCTCCGGGGCCGGCAAGGCCATCGGCGTGCTGACCAGCGGCGGGGATGCTCAAGGTATG AACGCTGCCGTCCGTGCCGTGCGCATGGGTATCTACGTGGGGCCCAAGGTGTACTTCATCTACGAGGGCTAC CAGGGCATGGTGGACGGAGGCTCAAACATCGCAGAGGCCGACTGGGAGAGTGTCTCCAGCATCCTGCAAGTGGGC GGGACGATCATTGGCAGTGCGCGGTGCCAGGCCTTCCGCACGCGGGAAGGCCGCCTGAAGGCTGCTTGCAACCTG CTGCAGCGCGCATCACCAACCTGTGTGTGATCGGCGGGGACGGGAGCCTCACCGGGGCCAACCTCTTCCGGAAG GAGTGGAGTGGGCTGCTGGAGGAGCTGGCCAGGAACGGCCAGATCGATAAGGAGGCCGTGCAGAAGTACGCCTAC CTCAACGTGGTGGGCATGGTGGGCTCCATCGACAATGATTTCTGCGGCACCGACATGACCATCGGCACGGACTCC GCCCTGCACAGGATCATCGAGGTCGTCGACGCCATCATGACCACGGCCCAGAGCCACCAGAGGACCTTCGTTCTG GAGGTGATGGGACGACACTGTGGGTACCTGGCCCTGGTGAGTGCCTTGGCCTGCGGTGCGGACTGGGTGTTCCTT CCAGAATCTCCACCAGAGGAAGGCTGGGAGGAGCAGATGTGTGTCAAACTCTCGGAGAACCGTGCCCGGAAAAAA AGGCTGAATATTATTATTGTGGCTGAAGGAGCAATTGATACCCAAAATAAACCCATCACCTCTGAGAAAATCAAA GAGCTTGTCGTCACGCAGCTGGGCTATGACACACGTGTGACCATCCTCGGGCACGTGCAGAGAGGAGGGACCCCT TCGGCATTCGACAGGATCTTGGCCAGCCGCATGGGAGTGGAGGCAGTCATCGCCTTGCTAGAGGCCACCCCGGAC AACCTGAACACCTACAAGCGACTTGCCATCAAGCTGCCGGATGATCAGATCCCAAAGACCAATTGCAACGTAGCT GTCATCAACGTGGGGGCACCCGCGGCTGGGATGAACGCGGCCGTACGCTCAGCTGTGCGCGTGGGCATTGCCGAC GGCCACAGGATGCTCGCCATCTATGATGGCTTTGACGGCTTCGCCAAGGGCCAGATCAAAGAAATCGGCTGGACA GATGTCGGGGGCTGGACCGGCCAAGGAGGCTCCATTCTTGGGACAAAACGCGTTCTCCCGGGGAAGTACTTGGAA GAGATCGCCACAGATGCGCACGCACAGCATCAACGCGCTGCTGATCATCGGTGGATTCGAGGCCTACCTGGGA CTCCTGGAGCTGTCAGCCGCCCGGGAGAAGCACGAGGAGTTCTGTGTCCCCATGGTCATGGTTCCCGCTACTGTG TCCAACAATGTGCCGGGTTCCGATTTCAGCATCGGGGCAGACACCGCCCTGAACACTATCACCGACACCTGCGAC CGCATCAAGCAGTCCGCCAGCGGAACCAAGCGGCGCGTGTTCATCATCGAGACCATGGGCGGCTACTGTGGCTAC CTGGCCAACATGGGGGGGCTCGCGGCCGGAGCTGATGCCGCATACATTTTCGAAGAGCCCTTCGACATCAGGGAT CTGCAGTCCAACGTGGAGCACCTGACGGAGAAAATGAAGACCACCATCCAGAGAGGCCTTGTGCTCAGAAATGAG AGCTGCAGTGAAAACTACACCACCGACTTCATTTACCAGCTGTATTCAGAAGAGGGGCAAAGGCGTGTTTGACTGC AGGAAGAACGTGCTGGGTCACATGCAGCAGGGTGGGGCACCCTCTCCATTTGATAGAAACTTTGGAACCAAAATC TCTGCCAGAGCTATGGAGTGGATCACTGCAAAACTCAAGGAGGCCCGGGGCAGAGGAAAAAAATTTACCACCGAT GATTCCATTTGTGTGCTGGGAATAAGCAAAAGAAACGTTATTTTTCAACCTGTGGCAGAGCTGAAGAAGCAAACG GATTTTGAGCACAGGATTCCCAAAGAACAGTGGTGGCTCAAGCTACGGCCCCTCATGAAAATCCTGGCCAAGTAC  $AAGGCCAGCTATGACGTGTCGGACTCAGGCCAGCTGGAACATGTGCAGCCCTGGAGTGTC{\color{red}{\textbf{TGA}}}CCCAGTCCCGCC$ TGCATGTGCCTGCAGCCACCGTGGACTGTCTGTTTTTGTAACACTTAAGTTATTTTATCAGCACTTTATGCACGT 

# 153/2682 FIGURE 143

MDADDSRAPKGSLRKFLEHLSGAGKAIGVLTSGGDAQGMNAAVRAVVRMGIYVGAKVYFIYEGYQGMVDGGSNIA
EADWESVSSILQVGGTIIGSARCQAFRTREGRLKAACNLLQRGITNLCVIGGDGSLTGANLFRKEWSGLLEELAR
NGQIDKEAVQKYAYLNVVGMVGSIDNDFCGTDMTIGTDSALHRIIEVVDAIMTTAQSHQRTFVLEVMGRHCGYLA
LVSALACGADWVFLPESPPEEGWEEQMCVKLSENRARKKRLNIIIVAEGAIDTQNKPITSEKIKELVVTQLGYDT
RVTILGHVQRGGTPSAFDRILASRMGVEAVIALLEATPDTPACVVSLNGNHAVRLPLMECVQMTQDVQKAMDERR
FQDAVRLRGRSFAGNLNTYKRLAIKLPDDQIPKTNCNVAVINVGAPAAGMNAAVRSAVRVGIADGHRMLAIYDGF
DGFAKGQIKEIGWTDVGGWTGQGGSILGTKRVLPGKYLEEIATQMRTHSINALLIIGGFEAYLGLLELSAAREKH
EEFCVPMVMVPATVSNNVPGSDFSIGADTALNTITDTCDRIKQSASGTKRRVFIIETMGGYCGYLANMGGLAAGA
DAAYIFEEPFDIRDLQSNVEHLTEKMKTTIQRGLVLRNESCSENYTTDFIYQLYSEEGKGVFDCRKNVLGHMQQG
GAPSPFDRNFGTKISARAMEWITAKLKEARGRGKKFTTDDSICVLGISKRNVIFQPVAELKKQTDFEHRIPKEQW
WLKLRPLMKILAKYKASYDVSDSGQLEHVQPWSV

 ${\tt CCATTGTGCTCTAAAGGGAAGGTGCTGTGTAATCATTAAGGAGCGGAGGCTTTTGGAGCTGCTAAA\underline{{\tt ATG}}{\tt CCGGAT}$ TACCTCGGTGCCGATCAGCGGAAGACCAAAGAGGATGAGAAGGACGACAAGCCCATCCGAGCTCTGGATGAGGGG CAACTTCTCAAGAAAATTAATGAGCTCACTGGTATTAAAGAATCTGACACTGGCCTGGCCCCACCAGCACTCTGG GATTTGGCTGCAGATAAGCAGACACTCCAGAGTGAACAGCCTTTACAGGTTGCCAGGTGTACAAAGATAATCAAT GCTGATTCGGAGGACCCAAAATACATTATCAACGTAAAGCAGTTTGCCAAGTTTGTGGTGGACCTTAGTGATCAG CCTCCTAAGATTGACCCAACAGTTACCATGATGCAGGTGGAAGAGAAACCTGATGTCACATACAGTGATGTTGGT GGCTGTAAGGAACAGATTGAGAAACTGCGAGAAGTAGTTGAAACCCCATTACTTCATCCAGAGAGGTTTGTGAAC CTTGGCATTGAGCCTCCCAAGGGCGTGCTCTTTGGTCCACCCGGTACAGGCAAGACACTCTGTGCGCGGGCA GTTGCTAATCGGACTGATGCGTGCTTCATTCGAGTTATTGGATCTGAGCTTGTACAGAAATACGTCGGTGAGGGG ·GCTATTGGAGGGGCTCGTTTTGATGATGGTGCTGGAGGTGACAATGAAGTGCAGAGAACAATGTTGGAACTGATC AATCAGCTTGATGGTTTTGATCCTCGAGGCAATATTAAAGTGCTGATGGCCACTAACAGACCTGATACTTTGGAT CCAGCACTGATGAGGCCAGGGAGATTGGATAGAAAAATTGAATTTAGCTTGCCCGATCTAGAGGGTCGGACCCAC ATATTTAAGATTCACGCTCGTTCAATGAGTGTTGAAAGAGATATCAGATTTGAACTGTTAGCACGACTGTGTCCA AATAGCACTGGTGCTGAGATTAGAAGCGTCTGCACAGAGGCTGGTATGTTTGCCATCAGAGCACGGCGAAAAATT GCTACCGAGAAGGATTTCTTGGAAGCTGTAAATAAGGTCATTAAGTCTTATGCCAAATTCAGTGCTACTCCTCGT  ${\tt TACATGACATACAAC} \underline{{\tt TGA}}{\tt ACCCTGAAGGCTTTCAAGTGAAAACTTTAAATTGGAATCCTAACCTTATATAGACTT}$ GTTAATAACCAATTCATAAACAAATAAATGGCTTCAACTTTAGAGCACAATGG

# 155/2682 FIGURE 145

MPDYLGADQRKTKEDEKDDKPIRALDEGDIALLKTYGQSTYSRQIKQVEDDIQQLLKKINELTGIKESDTGLAPP ALWDLAADKQTLQSEQPLQVARCTKIINADSEDPKYIINVKQFAKFVVDLSDQVAPTDIEEGMRVGVDRNKYQIH IPLPPKIDPTVTMMQVEEKPDVTYSDVGGCKEQIEKLREVVETPLLHPERFVNLGIEPPKGVLLFGPPGTGKTLC ARAVANRTDACFIRVIGSELVQKYVGEGARMVRELFEMARTKKACLIFFDEIDAIGGARFDDGAGGDNEVQRTML ELINQLDGFDPRGNIKVLMATNRPDTLDPALMRPGRLDRKIEFSLPDLEGRTHIFKIHARSMSVERDIRFELLAR LCPNSTGAEIRSVCTEAGMFAIRARRKIATEKDFLEAVNKVIKSYAKFSATPRYMTYN

ATCCGTGTCCTTGCGGTGCTGGGCAGACCGTCCAAACCGACACGCGTGGTATCCTCGCGGTGTCCGGCAAGA  $\texttt{GACTACCAAGACAGACGCT} \underline{\textbf{ATG}} \texttt{ACTGAGGCTGATGTGAATCCAAAGGCCTATCCCCTTGCCGATGCCCACCTCAC}$ CAAGAAGCTACTGGACCTCGTTCAGCAGTCATGTAACTATAAGCAGCTTCGGAAAGGAGCCAATGAGGCCACCAA AACCCTCAACAGGGGCATCTCTGAGTTCATCGTGATGGCTGCAGACGCCGAGCCACTGGAGATCATTCTGCACCT GCCGCTGCTGTGTGAAGACAAGAATGTGCCCTACGTGTTTGTGCGCTCCAAGCAGGCCCTGGGGAGAGCCTGTGG GGTCTCCAGGCCTGTCATCGCCTGTTCTGTCACCATCAAAGAAGGCTCGCAGCTGAAACAGCAGATCCAATCCAT  ${ t TCAGCAGTCCATTGAAAGGCTCTTAGTC}$ GGTTGTGTATCATATTATCTGTGTTAGCATGTAGTATTTTCAGCTACTCTCTATTGTTATAAAATGTAGTACTAA CGTTGAAAGGCAGAAAGCCAGGAGAAAGCTGATGGAGCCAGGACAGAGATCTGGTTCCAGCTTTCAGCCACTA ATTCATACGTGTTCAAGTGATCAAGGGGTTTCATTTGCTCTTGGGGGATTAGGTATCATTTGGGGAGGAAGCATG TGTTCTGTGAGGTTGTTCGGCTATGTCCAAGTGTCGTTTACTAATGTACCCCTGCTGTTTGCTTTTGGTAATGTG ATGTTGATGTTCTCCCCCTACCCACAACCATGCCCTTGAGGGTAGCAGGGCAGCAGCATACCAAAGAGATGTGCT GCAGGACTCCGGAGGCAGCCTGGGTGAGCCATGGGGCAGTTGACCTGGGTCTTGAAAGAGTCGGGAGTGAC TCTGAGAGCCCTTCCCCTGTGTCCTGCCACCATGTGGGTCAGATGTACTCTCTGTCACATGAGGAGAGTGCTAGT TCATGTGTTCTCCATTCTTGTGAGCATCCTAATAAATCTGTTCCATTTTG

# 157/2682 FIGURE 147

 ${\tt MTEADVNPKAYPLADAHLTKKLLDLVQQSCNYKQLRKGANEATKTLNRGISEFIVMAADAEPLEIILHLPLLCEDKNVPYVFVRSKQALGRACGVSRPVIACSVTIKEGSQLKQQIQSIQQSIERLLV}$ 

CCTGCATCTATGGTGAGGGCTACAGCAATGCCCACGAGTCTAAGCAGATGTACTGCGTGTTCAACCGCAACGAGG ATGCCTGCCGCTATGGCAGTGCCATCGGGGTGCTGGCCTTCCTGGCCTTCTTCTTGGTGGTCGACGCGT ATTTCCCCCAGATCAGCAACGCCACTGACCGCAAGTACCTGGTCATTGGTGACCTGCTCTTCTCAGCTCTCTGGA GGGCCGACTCTGTGAGGGCAGCCATCACCTTCAGCTTCTTTTCCATCTTCTCCTGGGGTGTGCTGGCCTCCCTGG CCTACCAGCGCTACAAGGCTGGCGTGGACGACTTCATCCAGAATTACGTTGACCCCACTCCGGACCCCAACACTG CCTACGCCTCCTACCCAGGTGCATCTGTGGACAACTACCAACAGCCACCCTTCACCCAGAACGCGGAGACCACCG  ${\tt AGGGCTACCAGCCGCCCCTGTGTAC} \underline{{\tt TGA}} {\tt GCGGCGGTTAGCGTGGGAAGGGGGACAGAGAGGGCCCTCCCCTCTG}$ CCCTGGACTTTCCCATGAGCCTCCTGGAACTGCCAGCCCCTCTTTTCACCTGTTCCATCCTGTGCAGCTGACAC ACAGCTAAGGAGCCTCATAGCCTGGCGGGGGCTGGCAGAGCCACACCCCAAGTGCCTGTGCCCAGAGGGCTTCAG TCAGCCGCTCACTCCTCCAGGGCATTTTTAGGAAAGGGTTTTCAGCTAGTGTTTTTCCTCGCTTTTAATGACCTC AGCCCCGCCTGCAGTGGCTAGAAGCCAGCAGGTGCCCATGTGCTACTGACAAGTGCCTCAGCTTCCCCCCGGCCC GGGTCAGGCCGTGGGAGCCGCTATTATCTGCGTTCTCCCAAAGACTCGTGGGGGCCCATCACACCTGCCCTGTG CAGCGGAGCCGGACCAGGCTCTTGTGTCCTCACTCAGGTTTGCTTCCCCTGTGCCCACTGCTGTATGATCTGGGG GCCACCACCTGTGCCGGTGGCCTCTGGGCTGCCTCCCGTGGTGTGAGGGCGGGGCTGGTGCTCATGGCACTTCC TCCTTGCTCCCACCCCTGGCAGCAGGGAAGGGCTTTGCCTGACAACACCCAGCTTTATGTAAATATTCTGCAGTT ATCGTGGGGGAGATGCCCGGCCTGGGATGCTGTTTGGAGACGGAATAAATGTTTTCTCATTCAGTA

# 159/2682 FIGURE 149

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCCGCA TCGCCTCCCGTGGAAGCCCAGGCCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACCATGTCCACCAACGAGAAT GCTAATACACCAGCTGCCCGTCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATTT CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACCAGGGCACTGTAAATTGGTCTGTTGATGACATT GTCAAAGGCATAAATAGCAGCAATGTGGAAAATCAGCTCCAAGCTACTCAAGCTGCCAGGAAACTACTTTCCAGA GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCCTTCTTGGGCAGAACT GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCATTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAA GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT GACCCACTGTTGGCTCTCCTTGCAGTTCCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA GTTCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCCTACCTTACTGATGGT CCAAATGAACGAATTGGCATGGTGGAAAACAGGAGTTGTGCCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTC CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAACTGCA AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAAACTAGGTGAA ACTGAGAAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAAGAAGATCAAAACGTT GTACCAGAAACTACCTCTGAAGGCTACACTTTCCAAGTTCAGGATGGGGCTCCTGGGACCTTTAACTTT<u>TAG</u>ATC ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAACTCTTT TGTATGAAGCTTGTCCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCCTATCTTGCAGCATCCTGTAAATAA ACATTCAAGTCCACCCTTAAAAAAAA

# 161/2682 FIGURE 151

MSTNENANTPAARLHRFKNKGKDSTEMRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIRAGLIPKFVSFLGRTDCSPIQFESAWALTNIASG TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY LRNLTWTLSNLCRNKNPAPPIDAVEQILPTLVRLLHHDDPEVLADTCWAISYLTDGPNERIGMVVKTGVVPQLVK LLGASELPIVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA AEKLGETEKLSIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVQDGAPG TFNF

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA GTGCACCCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACTGGTTCTGGGTTCACCTCCCTGCT CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC GGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA CCGCCTTATTAGCCAGATTGTGTCCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC AGAATTCCAGACCAACCTGGTCCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTCATCTCTGC GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTCAGAGGCCCGTGAAGATATGGCTGCCCT ATCCATTCCTTTTGGCCCTGCAGCATGTCATGCTCCCAGAATTTCAGCTTCAGCTTAACTGACAGATGTTAAAGC TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC AAAGTAAAGTCATTAACATCA

# 163/2682 FIGURE 153

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIRKLADQCTRLQGFLVFHSFGGGTGSGFT
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEEVGVDSVEGEGEEEGEE

### 164/2682 FIGURE 154A

GGACGCACAGGCATTCCCCGCGCCCCTCCAGCCCTCGCCGCCCTCGCCACCGCTCCCGGCCGCCCCCCGCTA  $\texttt{CACACAGGATCCCTGGGGCACCAACAGCTCCACC} \underline{\textbf{ATG}} \\ \texttt{GGGCTGGGGGACTAGGCGTCCTGTTCCTGATG}$ CATGTGTGGCACCAACCGCATTCCAGAGTCTGGCGGAGACAACAGCGTGTTTGACATCTTTGAACTCACCGGG GCCGCCCGCAAGGGGTCTGGGCGCCGACTGGTGAAGGGCCCCGACCCTTCCAGCCCAGCTTTCCGCATCGAGGAT GCCAACCTGATCCCCCCTGTGCCTGATGACAAGTTCCAAGACCTGGTGGATGCTGTGCGGGCAGAAAAGGGTTTC CTCCTTCTGGCATCCCTGAGGCAGATGAAGAAGACCCGGGGGCACGCTGCTGGCCCTGGAGCGGAAAGACCACTCT GGCCAGGTCTTCAGCGTGGTGTCCAATGGCAAGGCGGGCACCCTGGACCTCAGCCTGACCGTCCAAGGAAAGCAG  ${\tt CACGTGGTGTCTGTGGAAGAGCTCTCCTGGCAACCGGCCAGTGGAAGAGCATCACCCTGTTTGTGCAGGAAGAC}$ AGGGCCCAGCTGTACATCGACTGTGAAAAGATGGAGAATGCTGAGTTGGACGTCCCCATCCAAAGCGTCTTCACC AGAGACCTGGCCAGCATCGCCAGACTCCGCAAAGGGGGGGCGTCAATGACAATTTCCAGGGGGTGCTGCAG AATGTGAGGTTTGTCTTTGGAACCACCAGAAGACATCCTCAGGAACAAAGGCTGCTCCAGCTCTACCAGTGTC AAGGACTTGCAAGCCATCTGCGGCATCTCCTGTGATGAGCTGTCCAGCATGGTCCTGGAACTCAGGGGCCTGCGC ACCATTGTGACCACGCTGCAGGACAGCATCCGCAAAGTGACTGAAGAGAACAAAGAGTTGGCCAATGAGCTGAGG CGGCCTCCCCTATGCTATCACAACGGAGTTCAGTACAGAAATAACGAGGAATGGACTGTTGATAGCTGCACTGAG TGTCACTGTCAGAACTCAGTTACCATCTGCAAAAAGGTGTCCTGCCCCATCATGCCCTGCTCCAATGCCACAGTT CCTGATGGAGAATGCTGTCCTCGCTGTTGGCCCAGCGACTCTGCGGACGATGGCTGGTCCCATGGTCCGAGTGG ACCTCCTGTTCTACGAGCTGTGGCAATGGAATTCAGCAGCGCGGCCGCTCCTGCGATAGCCTCAACAACCGATGT GAGGGCTCCTCGGTCCAGACACGGACCTGCCACATTCAGGAGTGTGACAAAAGATTTAAACAGGATGGTGGCTGG AGCCACTGGTCCCCGTGGTCATCTTGTTCTGTGACATGTGGTGATGGTGATCACAAGGATCCGGCTCTGCAAC TGCCCCATCAATGGAGGCTGGGGTCCTTGGTCACCATGGGACATCTGTTCTGTCACCTGTGGAGGAGGGGTACAG AAACGTAGTCGTCTCTGCAACAACCCCGCACCCCAGTTTGGAGGCAAGGACTGCGTTGGTGATGTAACAGAAAAC CAGATCTGCAACAAGCAGGACTGTCCAATTGATGGATGCCTGTCCAATCCCTGCTTTGCCGGCGTGAAGTGTACT AGCTACCCTGATGGCAGCTGGAAATGTGGTGCTTGTCCCCCTGGTTACAGTGGAAATGGCATCCAGTGCACAGAT GTTGATGAGTGCAAAGAAGTGCCTGATGCCTCCAACCACAATGGAGAGCACCGGTGTGAGAACACGGACCCC GCCAACAAACAGGTGTGCAAGCCCCGTAACCCCTGCACGGATGGGACCCACGACTGCAACAAGAACGCCAAGTGC AACTACCTGGGCCACTATAGCGACCCCATGTACCGCTGCGAGTGCAAGCCTGGCTACGCTGGCAATGGCATCATC TGCGGGGAGGACACAGACCTGGATGGCTGGCCCAATGAGAACCTGGTGTGCGTGGCCAATGCGACTTACCACTGC AAAAAGGATAATTGCCCCAACCTTCCCAACTCAGGGCAGGAAGACTATGACAAGGATGGAATTGGTGATGCCTGT GATGATGACGATGACAATGATAAAATTCCAGATGACAGGGACAACTGTCCATTCCATTACAACCCAGCTCAGTAT GACTATGACAGAGATGATGTGGGAGACCGCTGTGACAACTGTCCCTACAACCACAACCCAGATCAGGCAGACACA GACAACAATGGGGAAGGAGACGCCTGTGCTGCAGACATTGATGGAGACGGTATCCTCAATGAACGGGACAACTGC GAACACAATCCGGATCAGCTGGACTCTGACTCAGACCGCATTGGAGATACCTGTGACAACAATCAGGATATTGAT GAAGATGGCCACCAGAACAATCTGGACAACTGTCCCTATGTGCCCAATGCCAACCAGGCTGACCATGACAAAGAT GGCAAGGGAGATGCCTGTGACCACGATGATGACAACGATGGCATTCCTGATGACAAGGACAACTGCAGACTCGTG CCCAATCCCGACCAGAAGGACTCTGACGGCGATGGTCGAGGTGATGCCTGCAAAGATGATTTTGACCATGACAGT GTGCCAGACATCGATGACATCTGTCCTGAGAATGTTGACATCAGTGAGACCGATTTCCGCCGATTCCAGATGATT CCTCTGGACCCCAAAGGGACATCCCAAAATGACCCTAACTGGGTTGTACGCCATCAGGGTAAAGAACTCGTCCAG ACTGTCAACTGTGATCCTGGACTCGCTGTAGGTTATGATGAGTTTAATGCTGTGGACTTCAGTGGCACCTTCTTC ATCAACACCGAAAGGGACGATGACTATGCTGGATTTGTCTTTGGCTACCAGTCCAGCAGCCGCTTTTATGTTGTG ATGTGGAAGCAAGTCACCCAGTCCTACTGGGACACCCAACCCCACGAGGGCTCAGGGATACTCGGGCCTTTCTGTG AAAGTTGTAAACTCCACCACAGGGCCTGGCGAGCACCTGCGGAACGCCCTGTGGCACACAGGAAACACCCCTGGC CAGGTGCGCACCCTGTGGCATGACCCTCGTCACATAGGCTGGAAAGATTTCACCGCCTACAGATGGCGTCTCAGC CACAGGCCAAAGACGGGTTTCATTAGAGTGGTGATGTATGAAGGGAAGAAAATCATGGCTGACTCAGGACCCATC 

# 165/2682 FIGURE 154B

 $\mathtt{AAATACGAATGTAGAGATCCC}$   $\mathtt{TAA}$   $\mathtt{TCATCAAATTGTTGATTGAAAGACTGATCATAAACCAATGCTGGTATTGCA$ CCTTCTGGAACTATGGGCTTGAGAAAACCCCCAGGATCACTTCTCCTTGGCTTCCTTTTTCTGTGCTTGCATC AGTGTGGACTCCTAGAACGTGCGACCTGCCTCAAGAAAATGCAGTTTTCAAAAAACAGACTCATCAGCATTCAGCC TCCAATGAATAAGACATCTTCCAAGCATATAAACAATTGCTTTGGTTTCCTTTTGAAAAAGCATCTACTTGCTTC AGTTGGGAAGGTGCCCATTCCACTCTGCCTTTGTCACAGAGCAGGGTGCTATTGTGAGGCCATCTCTGAGCAGTG CTCCTTCAGGAACACGGGGAGCAGAGGCCAAAGCACTAAGGGGAGGGCGCATACCCGAGACGATTGTATGAAGAA AATATGGAGGAACTGTTACATGTTCGGTACTAAGTCATTTTCAGGGGATTGAAAGACTATTGCTGGATTTCATGA TGCTGACTGGCGTTAGCTGATTAACCCATGTAAATAGGCACTTAAATAGAAGCAGGAAAGGGAGACAAAGACTGG CTTCTGGACTTCCTCCCTGATCCCCACCCTTACTCATCACCTTGCAGTGGCCAGAATTAGGGAATCAGAATCAAA CCAGTGTAAGGCAGTGCTGGCTGCCATTGCCTGGTCACATTGAAATTGGTGGCTTCATTCTAGATGTAGCTTGTG CAGATGTAGCAGGAAAATAGGAAAACCTACCATCTCAGTGAGCACCAGCTGCCTCCCAAAGGAGGGGCAGCCGTG **AATTACTAGGTAGTTTTCTAATTCTCTCTTTTGGAAGTATGATTTTTTTAAAGTCTTTACGATGTAAAATATTTA** TTTTTTACTTATTCTGGAAGATCTGGCTGAAGGATTATTCATGGAACAGGAAGAAGCGTAAAGACTATCCATGTC TAGGCTTCATACGGAAAGTGTTTGAGAGCAAGTAGTTGACATTTATCAGCAAATCTCTTGCAAGAACAGCACAAG GAAAATCAGTCTAATAAGCTGCTCTGCCCCTTGTGCTCAGAGTGGATGTTATGGGATTCCTTTTTTCTCTGTTTT AAAAGAGAAAAAATGACAAAAGGTGAAACTTACATACAAATATTACCTCATTTGTTGTGTGACTGAGTAAAGAA TTTTTGGATCAAGCGGAAAGAGTTTAAGTGTCTAACAAACTTAAAGCTACTGTAGTACCTAAAAAAGTCAGTGTTG TACATAGCATAAAAACTCTGCAGAGAAGTATTCCCAATAAGGAAATAGCATTGAAATGTTAAATACAATTTCTGA AAGTTATGTTTTTTTTCTATCATCTGGTATACCATTGCTTTATTTTTATAAATTATTTTCTCATTGCCATTGGAA TAGAATATTCAGATTGTGTAGATATGCTATTTAAATAATTTTATCAGGAAATACTGCCTGTAGAGTTAGTATTTCT CATTTTTATCCATTTTACATTCTAAAGCAGTGTAAGTTGTATATTACTGTTTCTTATGTACAAGGAACAACAATA **AATCATATGGAAATTTATATTT** 

### 166/2682 FIGURE 155

MGLAWGLGVLFLMHVCGTNRIPESGGDNSVFDIFELTGAARKGSGRRLVKGPDPSSPAFRIEDANLIPPVPDDKF QDLVDAVRAEKGFLLLASLRQMKKTRGTLLALERKDHSGQVFSVVSNGKAGTLDLSLTVQGKQHVVSVEEALLAT GQWKSITLFVQEDRAQLYIDCEKMENAELDVPIQSVFTRDLASIARLRIAKGGVNDNFQGVLQNVRFVFGTTPED ILRNKGCSSSTSVLLTLDNNVVNGSSPAIRTNYIGHKTKDLQAICGISCDELSSMVLELRGLRTIVTTLQDSIRK VTEENKELANELRRPPLCYHNGVQYRNNEEWTVDSCTECHCQNSVTICKKVSCPIMPCSNATVPDGECCPRCWPS DSADDGWSPWSEWTSCSTSCGNGIQQRGRSCDSLNNRCEGSSVQTRTCHIQECDKRFKQDGGWSHWSPWSSCSVT CGDGVITRIRLCNSPSPQMNGKPCEGEARETKACKKDACPINGGWGPWSPWDICSVTCGGGVQKRSRLCNNPAPO FGGKDCVGDVTENQICNKQDCPIDGCLSNPCFAGVKCTSYPDGSWKCGACPPGYSGNGIQCTDVDECKEVPDACF NHNGEHRCENTDPGYNCLPCPPRFTGSQPFGQGVEHATANKQVCKPRNPCTDGTHDCNKNAKCNYLGHYSDPMYR CECKPGYAGNG!ICGEDTDLDGWPNENLVCVANATYHCKKDNCPNLPNSGQEDYDKDGIGDACDDDDDNDKIPDD  ${\tt RDNCPFHYNPAQYDYDRDDVGDRCDNCPYNHNPQQADTDNNGEGDACAADIDGDGILNERDNCQYVYNVDQRDTD}$  ${\tt MDGVGDQCDNCPLEHNPDQLDSDSDRIGDTCDNNQDIDEDGHQNNLDNCPYVPNANQADHDKDGKGDACDHDDDN}$ DGIPDDKDNCRLVPNPDQKDSDGDGRGDACKDDFDHDSVPDIDDICPENVDISETDFRRFQMIPLDPKGTSQNDP NWVVRHQGKELVQTVNCDPGLAVGYDEFNAVDFSGTFFINTERDDDYAGFVFGYQSSSRFYVVMWKQVTQSYWDT NPTRAQGYSGLSVKVVNSTTGPGEHLRNALWHTGNTPGOVRTLWHDPRHIGWKDFTAYRWRLSHRPKTGFIRVVM YEGKKIMADSGPIYDKTYAGGRLGLFVFSQEMVFFSDLKYECRDP

# 167/2682 FIGURE 156

GGCACGAGGGCGGCGGCGGTAGAGGCGGCGGCGGCGGCAGCGGGCTCGGAGGCAGCGGTTGGGCTCGCG  ${\tt GCGAGCGGACGGGGTCGAGTCAGTGCGTTCGCGCGAGTTGGAATCGAAGCCTCTTAAA} \underline{{\tt ATC}}{\tt GCAGATGACTTGGA}$ CTTCGAGACAGGAGATGCAGGGGCCTCAGCCACCTTCCCAATGCAGTGCTCAGCATTACGTAAGAATGGCTTTGT GGTGCTCAAAGGCCGGCCATGTAAGATCGTCGAGATGTCTACTTCGAAGACTGGCAAGCACGGCCACGCCAAGGT CCATCTGGTTGGTATTGACATCTTTACTGGGAAGAAATATGAAGATATCTGCCCGTCAACTCATAATATGGATGT CCCCAACATCAAAAGGAATGACTTCCAGCTGATTGGCATCCAGGATGGGTACCTATCACTGCTCCAGGACAGCGG GGAGGTACGAGAGGACCTTCGTCTCCCTGAGGGAGACCTTGGCAAGGAGATTGAGCAGAAGTACGACTGTGGAGA AGAGATCCTGATCACGGTGCTGTCTGCCATGACAGAGGGGGGCAGCTGTTGCAATCAAGGCCATGGCAAAA<u>TAA</u>CT GGCTCCCAGGATGGCGGTGGTGGCAGCAGTGATCCTCTGAACCTGCAGAGGCCCCCTCCCCGAGCCTGGCCTGGC ATCTGTCGGGGAGCCCCTGCCCTTCACCTAGCTCCCTTGGCCAGGAGCGAAGCTGTGGCCTTGGTGAAGCT TTTTTTTTTTTTTTTTTTTAAATTCAATCTGGAATCAGAAAGCGGTGGATTCTGGCAAATGGTCCTTGTGC CCTCCCCACTCATCCCTGGTCTGGTCCCCTGTTGCCCATAGCCCTTTACCCTGAGCACCACCCCAACAGACTGGG GACCTGCCCCTCCTCAGGCATCTGGGAGGGCCCTGCCCCCATGGGCTTTACCCTTCCCTGCGGGCTCTCTCCCC **АААААААААААААААААА** 

# 168/2682 FIGURE 157

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS THNMDVPNIKRNDFQLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEAAVAIK AMAK

AGCGAGTCCTTCTTTTCCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCCATGATGGTTCTGCAGG TTTCTGCGGCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTCACATCTGTGGTCCAGGGCAGGG CCACTCCAGAGAATTACGTGTACCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCCTGGAGA GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTTCCGGGCGGTGACGGAGCTGG GGCGGCCTGCTGCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT GCAGACACAACTACGAGCTGGACGAGGCCGTGACCCTGCAGCGCGAGTCCAGCCTAAGGTGAACGTTTCCCCCT CCAAGAAGGGGCCCCTGCAGCACCACAACCTGCTTGTCTGCCACGTGACAGATTTCTACCCAGGCAGCATTCAAG TCCGATGGTTCCTGAATGGACAGGAGGAAACAGCTGGGGTCGTGTCCACCAACCTGATCCGTAATGGAGACTGGA CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCCAGCAGGGAGACGTCTACATCTGCCAAGTGGAGCACACCA GCCTGGACAGTCCTGTCACCGTGGAGTGGAAGGCACAGTCTGATTCTGCCCAGAGTAAGACATTGACGGGAGCTG GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG GATCTGCATAAACAGGGTTCCTGACCTCACCGAAAAGACTAATGTGCCTTAGAACAAGCATTTGCTGTTTTTGT TAACACCTGGTTCCAGGACAGACCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTAGCA CCACAAATAATCAAAACCCAACATAAGTGTTTGCTTTCCTTTAAAAATATGCATCAAATCGTCTCTCATTACTTT TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTCATTTTGGTTTACACGTAGGAAAGAAGAAGAAG CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT TCAGTGAGCTGCCCCCAAATCAAGTTTAGTGCCCTCATCCATTTATGTCTCAGACCGCTATTCTTAACTATTCAA TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTCCCACAGCACTAATTCAACATATATCTTACTGAGA GCATGTTTTATCATTACCATTAAGAAGTTAAATGAACATCAGAATTTAAAATCATAAATATAATCTAATACACTT

# 170/2682 FIGURE 159

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVYQGRQECYAFNGTQRFLERYIYNREEYARFDSDVGEFR AVTELGRPAAEYWNSQKDILEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGPLQHHNLLVCHVTDFY PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTFQILVMLEMTPQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

GGCACGAGGGGCGGCCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG CGGGAATCACACACATACCTCAGA**ATG**CCGGGTCTAAGTTGTAGATTTTATCAACACAAATTTCCTGAGGTGGAA GATGTAGTGATGGTGAATGTCAGATCCATTGCTGAAATGGGGGCTTATGTCAGCTTGCTGGAATACAACAACATT GAAGGCATGATTCTTCTTAGTGAATTATCCAGAAGGCGTATCCGTTCTATCAACAAACTCATCCGAATTGGCAGG AATGAGTGTGTGGTTGTCATTAGGGTGGACAAAGAAAAAGGATATATTGATTTGTCAAAAAAGAAGAGTTTCTCCA GAGGAAGCAATCAAATGTGAAGACAAATTCACAAAATCCAAAACTGTTTATAGCATTCTTCGTCATGTTGCTGAG GTGTTAGAATACACCAAGGATGAGCAGCTGGAAAGCCTATTCCAGAGGACTGCCTGGGTCTTTGATGACAAGTAC AAGAGACCTGGATATGGTGCCTATGATGCATTTAAGCATGCAGTCTCAGACCCATCTATTTTGGATAGTTTAGAT TTGAATGAAGATGAACGGGAAGTACTCATTAATAATATTAATAGGCGCTTGACCCCACAGGCTGTCAAAATTCGA GCAGATATTGAAGTGGCTTGTTATGGTTATGAAGGCATTGATGCTGTAAAAGAAGCCCTAAGAGCAGGTTTGAAT TGTTCTACAGAAAACATGCCCATTAAGATTAATCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCTG GAGAGAACAGAAGGCCTTTCTGTCCTCAGTCAAGCTATGGCTGTTATCAAAGAGAAGATTGAGGAAAAGAGGGGGT GTGTTCAATGTTCAAATGGAGCCCAAAGTGGTCACAGATACAGATGAGACTGAACTTGCGAGGCAGATGGAGAG CTTGAAAGAGAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAATGGAAGCCAAAGCTGAAGAT<u>TAA</u>CTT TGTGGGAAACAGAGTCCAATTTAAGGAACACAGAGCAGCGCTTCCTGGCTGTAAATCCTAGACTTGAAAGTTTTC CAGTATTGAAAACTTCAAAGCTGAATATTTTTTATTTCTAAGTATTTAAATGTTCTAACAGATCAGAACATGAAA TGCCCTCCTAAATGTCAGCTGTTGTCACACAGTAGCTCCAACACTTTGAGCATTTTTAAGGGAGTGGCCTCATTT CACTAGAGACAAATCTTTAAGAATAGTTCTAAAATTGGGCTTGTGATTTCCATTTCTGATGTCTCCAGATTGGCA CCCCTTTCTAGTTCAATGCCTCACGAGATTTGCCAGGGGCATCCAAGGCAAACAATCCCAATCTTTCTATATAAA AGCATTTTAATACTAAGACCCTAATTCTTTTATCTTTATTTTTAGTCTTGATGTGGAACTGTAGGAGCAGGTGAAT TTGACCCTTAGCGGGACAAAGCCTTAAAATGCATTGAAAGAATTAGATCGGTTCTGTGCCTTTTATCTATTTGAG ATTGATGACAACCTGTGTGAGAGAATTTATCACACCACGTCCTTATTGGAATAATAAGCTACTTGCCTTGAGTTT AATTTTTTATTTTTATTGCTATTAAAATATCCACTAGATGCCACCTAGAGCTCCAGTTCTTTATAACAAAACAGG GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTTACATGTTTCCATCATTTCTGTCTTTAAGAACTAATTCG TACATAATAAGTTTCATAGGTAACACATTATATTCTCTTATGATACTTGAGGTACCAGTTGTATTTAATTTTATT CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGACTAGACTACTC AATATTAAAGGGTCTGGAAAATAGAAGAGTGTGTTGGGCAGGTAGTTTGTACCATTTATGAAGGTTTGTTCCTTT GTTAAATTTAGCAGCCTGTACTAGCTTTTGAAATCCAGAAGTTTTAACTTCCAGTGGCTGGTTTCTGAGAGAGTG CCATGATTGCTAGCCAGCATTCCATATTGGGAATATGTAGAGGAGAACCTGGATGTACTTAAGAGTGGCATATAA TTTTCACTTCTGTCTGTTGAGGCAAAAAAAAAAACAAGTTTAGAAAGCTGGCAACATGAAGAATGCATTCAAAATA TAACAGGTGCTTCTTTGTTGTACGCAGAGGAATTTTTTCTTTTGATTTTGTTTACTGAAATTTGTTATACTTCAA CATGGCAATTTTGTAAATTGACCCTAGCCAGAGAATAGATCAGTATTCACTGATACCACGAGGAAAAGAACAAA CAAAACTTAAAAGTATTCATACACCTTGCTAACCTAAAAGACAGCAGGGACAAGATACATATGAGGACAAGGTAT GCATGGTAGCTCATGCCTGTAACCCTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT 

# 172/2682 FIGURE 161

MPGLSCRFYQHKFPEVEDVVMVNVRSIAEMGAYVSLLEYNNIEGMILLSELSRRRIRSINKLIRIGRNECVVVIR VDKEKGYIDLSKRRVSPEEAIKCEDKFTKSKTVYSILRHVAEVLEYTKDEQLESLFQRTAWVFDDKYKRPGYGAY DAFKHAVSDPSILDSLDLNEDEREVLINNINRRLTPQAVKIRADIEVACYGYEGIDAVKEALRAGLNCSTENMPI KINLIAPPRYVMTTTTLERTEGLSVLSQAMAVIKEKIEEKRGVFNVQMEPKVVTDTDETELARQMERLERENAEV DGDDDAEEMEAKAED

### 173/2682 FIGURE 162

CTCAATTTCTCACAGGGCTGCGCAGGTTTCCCCCGTCTGCGAATGGACCACTGGAGGGGTTCAAAGGTTCGCGTC  ${\tt CCAGTACGGGA}{ t ATG}{\tt AGCCTCTTTGATCTCTTCCGGGGCTTTTTCGGCTTTCCTGGACCTCGGAGCCACAGAGATC$ GGAACCCAAGGTTCCATAGTCCTCAGCACCCCCTGAGGAATTTGGCTTCGGCTTCAGCTTCAGCCCAGGAGGAG GGATACGTTTCCACGATAACTTCGGCTTTGATGACCTAGTACGAGATTTCAATAGCATCTTCAGCGATATGGGGG CCTGGACCTTGCCTTCCCATCCTCGAACTTCCAGGTCCTGAGTCAGAGACACCTGGTGAGAGACTACGGGAGG GTGATGCAAGAAGTGAATCCCCCCAACCAGCACCAGACTGGGGCTCCCAGAGGCCATTTCATAGGTTTGATGATG TATGGCCTATGGACCCCCATCCTAGAACCAGAGAGACAATGATCTTGATTCCCAGGTTTCCCAGGAGGGTCTTG GCCCGGTTCTACAGCCCCAGCCCAAATCCTATTTCAAGAGCATCTCTGTGACCAAGATCACTAAACCAGATGGGA TAGTGGAGGAGCGCCGGACTGTGGTGGACAGTGAGGGCCGGACAGAGACTACAGTAACCCGACACGAAGCAGATA GCAGTCCTAGGGGTGATCCAGAATCACCAAGACCTCCAGCCCTGGATGATGCCTTTTCCATCCTGGACTTATTCC  $\tt TGGGACGTTGGTTCCGGTCCCGG\underline{TAG}{CCTTGTTAACCCTCAGAGGCCTTCAAGTCCTTTCCACCTCTCACCCATT$ GCCCACCATTAATAAGCTTAGCTTCTCTTGCCACCTCAGGGGCTTGGATATGTGGAATAGTGAACTGGGGCCATG 

# 174/2682 FIGURE 163

MSLFDLFRGFFGFPGPRSHRDPFFGGMTRDEDDDEEEEEEGGSWGRGNPRFHSPQHPPEEFGFGFSFSPGGGIRF HDNFGFDDLVRDFNSIFSDMGAWTLPSHPPELPGPESETPGERLREGQTLRDSMLKYPDSHQPRIFGGVLESDAR SESPQPAPDWGSQRPFHRFDDVWPMDPHPRTREDNDLDSQVSQEGLGPVLQPQPKSYFKSISVTKITKPDGIVEE RRTVVDSEGRTETTVTRHEADSSPRGDPESPRPPALDDAFSILDLFLGRWFRSR

GGACACCGGGCCATGCACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCCAGGGGATTTCA AAGAGCTCAGACTCAGAGGAACATCTGCGGAGAGACCCCCGAAGCCCTCTCCAGGGCAGTCCTCATCCAGACGCT CCCCGCCTGCCCAAAGCACCGGGACTGGAGCACGGAGACCTACCAGGGATGTACCCTGCCCACATGTACCA AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACCTACAAATTGCCGCACCGGCTCAT CGAGAAAAAGAGACGTGACCGGATTAACGAGTGCATCGCCCAGCTGAAGGATCTCCTACCCGAACATCTCAAACT TACAACTTTGGGTCACTTGGAAAAAGCAGTGGTTCTTGAACTTACCTTGAAGCATGTGAAAGCACTAACAAACCT AATTGATCAGCAGCAGCAGAAAATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGAGCTGTCAGGGAGAAATGT CGAAACAGGTCAAGAGATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAGTATCTGGCCAAGCA TGGTACCTCCAGGAAGCCATCAGACCCAGCTCCCAAAGTGATGGACTTCAAGGAAAAACCCAGCTCTCCGGCCAA AGGTTCGGAAGGTCCTGGGAAAAACTGCGTGCCAGTCATCCAGCGGACTTTCGCTCACTCGAGTGGGGAGCAGAG CGGCAGCGACACGGACACAGACAGTGGCTATGGAGGAGAATCGGAGAAGGGCGACTTGCGCAGTGAGCAGCCGTG CTTCAAAAGTGACCACGGACGCAGGTTCACGATGGGAGAAAGGATCGGCGCAATTAAGCAAGAGTCCGAAGAACC CCCCACAAAAAAAAACCGGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCAGTGACCTGATCAGCTCCCC CCTGCCCATGCTGGAGAAGTGCTGGTATCCCACCTCAGTGCCAGTGCTATACCCAGGCCTCAACGCCTCTGCCGC AGCCCTCTCTAGCTTCATGAACCCAGACAAGATCTCGGCTCCCTTGCTCATGCCCCAGAGACTCCCTTCTCCCTT GCCAGCTCATCCGTCCGTCGACTCTTCTGTCTTGCTCCAAGCTCTGAAGCCAATCCCCCCTTTAAACTTAGAAAC CAAAGAC<u>TAA</u>ACTCTCTAGGGGATCCTGCTGCTTTGCTTTCCTTCCTCGCTACTTCCTAAAAAGCAACAAAAAG TTTTTGTGAATGCTGCAAGATTGTTGCATTGTGTATACTGAGATAATCTGAGGCATGGAGAGCAGATTCAGGGTG TCTGGGCTTTTCCCCACCCAGAGAATAGCCCCCTTCGATACACATCAGCTGGATTTTCAAAAGCTTCAAAGTCTT GGTCTGTGAGTCACTCTTCAGTTTGGGAGCTGGGTCTGTGGCTTTGATCAGAAGGTACTTTCAAAAGAGGGCTTT CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCCACCCTTTTGCCTTTATTGTCGACGTGACTCACCAGACGTC GGGGAGAGAGGGGCAGTCAGACCGAGCTTTCTGCTAACATGGGGAGGTAGCAGGCACTGGCATAGCACGGTAGTGG TTTGGGGAGGTTTCCGCAGGTCTGCTCCCCACCCCTGCCTCGGAAGAATAAAGAGAATGTAGTTCCCTACTCAGG TCTGAGAAATGCGGACACCCCGAGCGAGCACCCCAAAGTGCACAAAGCTGAGTAAAAAGCTGCCCCCTTCAAACA GAACTAGACTCAGTTTTCAATTCCATCCTAAAACTCCTTTTAACCAAGCTTAGCTTCTCAAAGGCCTAACCAAGC CTTGGCACCGCCAGATCCTTTCTGTAGGCTAATTCCTCTTGCCCAACGGCATATGGAGTGTCCTTATTGCTAAAA GCAGCAGCTTTTCAAGATGCACTATGCCTGATTGCTGATCGTGTTTTAACTTTTTCTTTTCCTGTTTTTATTTTG AATAATTTTTTTTTCTCTAGGGAGAGGTACAGTGTTTATATTTTTGGAGCCTTCCTGAAGGTGTAAAATTGTAAAT ATTTTTATCTATGAGTAAATGTTAAGTAGTTGTTTTAAAAATACTTAATAAAATAATTCTTTTCCTGTGGAAG

# 176/2682 FIGURE 165

MERIPSAQPPPACLPKAPGLEHGDLPGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL KDLLPEHLKLTTLGHLEKAVVLELTLKHVKALTNLIDQQQQKIIALQSGLQAGELSGRNVETGQEMFCSGFQTCA REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPGKNCVPVIQR TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIKQESEEPPTKKNRMQLSDDEGH FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL LMPQRLPSPLPAHPSVDSSVLLQALKPIPPLNLETKD

### 177/2682 FIGURE 166A

GTCCTTTCACGCGTGTCTTCGTGTTGGTGCGCTTTTCACTGGTCATAAAGTGCTGCTCACGGCCGTGAACTGCTA CAGCGTGAAGGCCGCCACCCGGGTCCAGGATGCTTTTGCCGCCGCCAAGCTCCTGGCCCTGACCATCATCCT GCTGGGCTTCGTCCAGATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTTGAAGGCACCAAACT GGATGTGGGGAACATTGTGCTGGCATTATACAGCGGCCTCTTTGCCTATGGAGGATGGAATTACTTGAATTTCGT  ${\tt CACAGAGGAA} \underline{\textbf{ATG}} \underline{\textbf{ATCAACCCCTACAGAAACCTGCCCCTGGCCATCATCATCTCCCTGCCCATCGTGACGCTGGT}$ GTACGTGCTGACCAACCTGGCCTACTTCACCACCCTGTCCACCGAGCAGATGCTGTCGTCCGAGGCCGTGGCCGT GGACTTCGGGAACTATCACCTGGGCGTCATGTCCTGGATCATCCCCGTCTTCGTGGGCCTGTCCTGCTTTGGCTC CGTCAATGGGTCCCTGTTCACATCCTCCAGGCTCTTCTTCGTGGGGTCCCGGGAAGGCCACCTGCCCTCCATCCT CTCCATGATCCACCCACAGCTCCTCACCCCGTGCCGTCCCTCGTGTTCACGTGTGTGATGACGCTGCTCTACGC CTTCTCCAAGGACATCTTCTCCGTCATCAACTTCTTCAGCTTCTTCAACTGGCTCTGCGTGGCCCTGGCCATCAT  $\tt CGGCATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCCATCAAGGTGAACCTGGCCCTGTGTT$  $\tt CTTCATCCTGGCCTGCCTCTTCTGGATCGCCGTCTCCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCTTCACCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCTTCACCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCACCT$ CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGGAAAAACAAGCCCAAGTGGCTCCTCCAGGG  ${\tt CATCTTCTCCACGACCGTCCTGTGTCAGAAGCTCATGCAGGTGGTCCCCCAGGAGACA} {\color{red}{\bf TAG}} {\tt CCAGGAGGCCGAGT}$ GGCTGCCGGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACCTCCTCGAACCCACTCCGGTTCCCCGCAACC CACAGCTCAGCTGCCCATCCCAGTCCTCGCCGTCCCCAGGTCGGGCAGTGGAGGCTGCTGTGAAAACTCTGG TACGAATCTCATCCCTCAACTGAGGGCCCAGGGACCCAGGTGTGCCTGTGCTCCTGCCCAGGAGCAGCTTTTGGTC AGACCCTGGGCAAACAGAGCTACTGAGACTTGGAACCTCATTGCTACCACAGACTTGCACTGAAGCCAGACAGCT TGCTTGAGGCCCCGATGGACTCCTGACCATAATCCTAGCCCCGAGACACCATCCTGAGCCAGGGAACAGCCCCAG GGTTGGGGGGTGCCGGCATCTCCCCTAGCTCACCAGGCCTGGCCTCTGGGCAGTGTGGCCTCTTGGCTATTTCTG TTCCAGTTTTGGAGGCTGAGTTCTGGTTCATGCAGACAAAGCCCTGTCCTTCAGTCTTCTAGAAACAGAGACAAG AAAGGCAGACACACCGCGGCCAGGCACCCATGTGGGCGCCCACCCTGGGCTCCACACAGCAGTGTCCCCTGCCCC AGAGGTCGCAGCTACCCTCAGCCTCCAATGCATTGGCCTCTGTACCGCCCGGCAGCCCCTTCTGGCCGGTGCTGG GTTCCCACTCCCGGCCTAGGCACCTCCCCGCTCTCCCTGTCACGCTCATGTCCTGTCCTGGTCCTGATGCCCGTT GTCTAGGAGACAGAGCCAAGCACTGCTCACGTCTCTGCCGCCTGCGTTTGGAGGCCCCTGGGCTCTCACCCAGTC CCCACCCGCCTGCAGAGAGGGAACTAGGGCACCCCTTGTTTCTGTTGTTCCCGTGAATTTTTTTCGCTATGGGAG GCAGCCGAGGCCTGGCCAATGCGGCCCACTTTCCTGAGCTGTCGCTGCCTCCATGGCAGCCAAGGACCCCCA GAACAAGAAGACCCCCCGCAGGATCCCTCCTGAGCTCGGGGGGCTCTGCCTTCTCAGGCCCCGGGCTTCCCTTC TCCCCAGCCAGAGGTGGAGCCAAGTGGTCCAGCGTCACTCCAGTGCTCAGCTGTGGCTGGAGGAGCTGGCCTGTG GCACAGCCCTGAGTGTCCCAAGCCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAGCGGCTGCTCAAGCC GCAAGCTCTCAGCAAGTGCCCAGTGGAGCCTGCCGCCCCCACCTGGGCACCCGGGACCCCCTCACCATCCAGTGGG TTATTCACCCCTGCCCCGTTGCTTCCCGCTGCACATGGACAGACTTCACAGCGTCTGCTCATAGGACCTGCATCC ACTGACTGTGTTGGGCAAGACCTCTTCCCTCTGGGCCTGTTCTCTTGGCTGCAAATAAGGACAGCAGCTGGTGCC CCACCTGCCTGGTGCATTGCTGTGAATCCAGGAGGCAGTGGACATCGTAGGCAGCCACGGCCCCAGGTCCAGG ACCTTCCCGCCTCGGCTAGGGGTCCTCGGGATGCCGTTCTGTTCCAACCTCCTGTTCTGGGAGGTGGACATGCCT CAAGGATACAGGGAGCCGGCGCCTCTCGACGGCACGCACTTCCTGTTGGCTGCTGCGGCTGTGGGCCAGCATGG GGGCTGCCAGCGTCTGTTGTGGAAAGTAGCTGCTAGTGAAATGGCTGGGGCCCGCTGGGGTCCGTCTTCACACTGC GCAGGTCTCTTCTGGGCGTCTGAGCTGGGGTGGGAGCTCCTCCGCAGAAGGTTGGTGGGGGGGTCCAGTCTGTGAT CCTTGGTGCTGTGCCCCACTCCAGCCTGGGGACCCCACTTCAGAAGGTAGGGGCCGTGTCCCGCGGTGCTGAC TGAGGCCTGCTTCCCCCTCCCCCTCCTGCTGTGCTGGAATTCCACAGGGACCAGGGCCACCGCAGGGGACTGTCT CAGAAGACTTGATTTTTCCGTCCCTTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGGTTTCCACTTGTGGG

# 178/2682 FIGURE 166B

# 179/2682 FIGURE 167

MINPYRNLPLAIIISLPIVTLVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIPVFVGLSCFGSVNG SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIGMI WLRHRKPELERPIKVNLALPVFFILACLFLIAVSFWKTPVECGIGFTIILSGLPVYFFGVWWKNKPKWLLQGIFS TTVLCQKLMQVVPQET

CGCACATGATCACCTCGGCCGCTGGAATTATTTCTCTTCTGGATGAAGATGAACCACAGCTTAAGGAATTTGCAC TACACAAATTGAATGCAGTTGTTAATGACTTCTGGGCAGAAATTTCCGAGTCCGTAGACAAAATAGAGGTTTTAT ACGAAGATGAAGGTTTCCGGAGTCGGCAGTTTGCAGCCTTAGTGGCATCTAAAGTATTTTATCACCTGGGGGCTT TTGAGGAGTCTCTGAATTATGCTCTTGGAGCAAGGGACCTCTTCAATGTCAATGATAACTCTGAATATGTGGAAA CTATTATAGCAAAATGCATTGATCACTACACCAAACAATGTGTGGAAAATGCAGATTTGCCTGAAGGAGAAAAAA AACCAATTGACCAGAGATTGGAAGGCATCGTAAATAAAATGTTCCAGCGATGTCTAGATGATCACAAGTATAAAC AGGCTATTGGCATTGCTCTGGAGACACGAAGACTGGACGTCTTTGAAAAGACCATACTGGAGTCGAATGATGTCC CAGGAATGTTAGCTTATAGCCTTAAGCTCTGCATGTCTTTAATGCAGAATAAACAGTTTCGGAATAAAGTACTAA GAGTTCTAGTTAAAATCTACATGAACTTGGAGAAACCTGATTTCATCAATGTTTGTCAGTGCTTAATTTTCTTAG ATGATCCTCAGGCTGTGAGTGATATCTTAGAGAAACTGGTAAAGGAAGACAACCTCCTGATGGCATATCAGATTT GTTTTGATTTGTATGAAAGTGCTAGCCAGCAGTTTTTGTCATCTGTAATCCAGAATCTTCGAACTGTTGGCACCC CTATTGCTTCTGTGCCTGGATCCACTAATACGGGTACTGTTCCGGGATCAGAAAAGACAGTGACTCGATGGAAA CAGAAGAAAAGACAAGCAGTGCATTTGTAGGAAAGACACCAGAAGCCAGTCCAGAGCCTAAGGACCAGACTTTGA AAATGATTAAAATTTTAAGTGGTGAAATGGCTATTGAGTTACATCTGCAGTTCTTAATACGAAACAATAATACAG ACCTCATGATTCTAAAAAACACAAAGGATGCAGTACGGAATTCTGTATGTCATACTGCAACCGTTATAGCAAACT CTTTTATGCACTGTGGGACAACCAGTGACCAGTTTCTTAGAGATAATTTGGAATGGTTAGCCAGAGCCACTAACT GGGCAAAATTTACTGCTACAGCCAGTTTGGGTGTAATTCATAAGGGTCATGAAAAAGAAGCATTACAGTTAATGG CAACATACCTTCCCAAGGATACTTCTCCAGGATCAGCCTATCAGGAAGGTGGAGGTCTCTATGCACTAGGTCTTA TTCATGCCAATCATGGTGGTGATATAATTGACTATCTGCTTAATCAGCTTAAGAACGCCAGCAATGATATCGTTA GACACGGTGGCAGTCTGGGCCTTGGTTTGGCAGCCATGGGAACTGCACGTCAAGATGTTTATGATTTGCTAAAAA CAAACCTTTATCAGGATGATGCAGTAACAGGGGAAGCAGCTGGCCTGGCCCTAGGTTTGGTTATGTTGGGCTCTA AAAATGCTCAGGCTATTGAGGACATGGTTGGTTATGCACAAGAAACTCAACATGAGAAGATTCTGCGTGGTCTTG CAGTTGGCATAGCTTTAGTAATGTATGGGAGGATGGAAGAGGCTGATGCTCTCATTGAATCTCTCTGTCGTGACA AGGACCCAATTCTTCGAAGGTCTGGAATGTATACTGTAGCCATGGCTTATTGTGGCTCTGGTAACAACAAAGCAA TTCGACGCCTGCTACATGTGGCTGTAAGTGATGTGAATGATGTCAGGAGTGCAGCAGTAGAATCACTTGGGT TCATTCTATTCAGAACCCCTGAACAGTGCCCAAGTGTTGTCTCTTTGTTGTCAGAGAGTTACAACCCTCATGTGC CAATGACAAACGACCCCGTGAACTACGTGAGGCAAGGGGCACTCATAGCTTCAGCTCTCATCATGATCCAGCAGA CTGAAATCACTTGTCCAAAGGTGAATCAGTTCAGACAGCTGTATTCCAAAGTCATCAATGATAAGCATGATGATG TCATGGCCAAGTTTGGCGCTATTCTGGCCCAGGGCATACTGGATGCAGGTGGTCATAATGTCACAATCTCCTTGC AGTCCAGGACTGGGCATACTCATATGCCTTCTGTGGTTGGCGTCCTTGTATTTACCCAGTTTTGGTTCTGGTTTC CTCTTTCACACTTCCTGTCATTGGCTTATACCCCTACCTGTGTCATTGGCCTTAACAAGGACTTAAAGATGCCGA AAGTTCAGTATAAATCGAACTGTAAACCATCCACATTTGCATATCCTGCCCCTCTGGAAGTACCAAAAGAAAAAG AGGAGGAGGAGAAAATGGAAGTGGATGAGGCAGAGAAAAAGGGAGAAAAAGAGAAAAAAGAGAAAACCTGAGCCAA GATACCAGCCTTTCAAACCACTCTCTATTGGAGGCATCATCATTCTGAAGGATACCAGTGAAGACATTGAGGAGC TGGTGGAACCTGTGGCAGCACATGGCCCAAAAATCGAGGAGGAGGAACAAGAGCCAGAACCCCCAGAACCATTTG AGTATATTGATGAT TAA GGACCAGAGGATCTCACTTGCTTATCTGAAGAAGATTGTCCAGGCTCATATTGGGAATGCTTATGAGGAAATTCATGCCGAGACCTGCTATTCAATGCATGTATCGTTGCCTCTGCACTGACCTGAAGAACCC TGTCTCCAAGTCTTTGGTTGAAGAGAAGATATATGACTGTTGAGTGTGCTCTTTCACAGAACTTGGTTTTCAAAT AAATATAAGATCTCCAGATGGACAAG

### 181/2682 FIGURE 169

# FIGURE 170A

TAGAATACTTGGGTGACATCTGCCTGAGAGATCTCCAAGAATTACAGAAGACAAAAATACTAATGCATTTGAGAA  ${\tt AGCGGTAGTTTTGGGGGGGGGGGGAAAAAGCAACTGCTTTCCTGATCTGCAACTTGGCTGGATGCTAAG{\color{red} {\bf ATG}}{\tt CA}}$ GTGGACATGAATAGCCAGGGGTCTGACAGCAATGAAGAGGACTATGACCCAAATTGTGAGGAAGAGAAGAAGAA GAAGAAGACGACCCTGGGGACATAGAGGACTATTACGTGGGAGTAGCCAGCGATGTGGAGCAGCAGGGGGCTGAT GCCTTTGATCCCGAGGAGTACCAGTTCACTTGCTTGACCTACAAGGAATCTGAGGGTGCCCTCAATGAGCACATG ACCAGCTTAGCTTCTGTCCTAAAGGTATCTCATTCAGTTGCTAAACTTATATTAGTTAATTTCCACTGGCAAGTT TCAGAGATATTGGACAGATACAAGTCCAATTCTGCTCAACTGCTTGTTGAGGCTCGAGTTCAGCCTAATCCATCA AAACATGTTCCCACATCCCATCCCCTCACCACTGTGCAGTGTGTATGCAGTTTGTGCGAAAGGAAAACCTACTC TCTCTGGCCTGTCAGCACCAGTTTTGCCGCAGCTGCTGGGAGCAGCACTGCTCAGTTCTCGTCAAGGACGGCGTG GGCGTGGGAGTCTCTTGCATGGCTCAGGACTGTCCACTCCGTACACCAGAGGACTTTGTGTTTCCATTGCTTCCC **AATGAAGAATTGAGAGAGAAATACAGGCGCTACCTCTTCAGGGACTATGTGGAGAGTCATTACCAGCTCCAGCTG** TGCCCTGGTGCAGACTGCCCCATGGTTATTCGGGTACAGGAGCCTAGAGCTCGCCGAGTACAGTGCAATCGGTGC AACGAGGTCTTCTGTTTCAAGTGTCGTCAGATGTATCACGCACCCACAGACTGTGCCACAATCCGGAAATGGCTC ACGAAGTGTGCAGACGACTCTGAAACAGCCAACTACATTAGTGCTCACACTAAAGACTGTCCCAAGTGCAACATC TGCATTGAGAAGAATGGAGGCTGCAATCACATGCAATGCTCCAAATGTAAACACGACTTCTGCTGGATGTGTCTA GGAGATTGGAAGACTCATGGCAGTGAATACTATGAGTGCAGTCGTTACAAGGAGAATCCTGACATCGTGAACCAG AGCCAACAAGCCCAGGCGAGGGAAGCCCTCAAGAAGTACTTATTCTACTTTGAGAGGTGGGAAAACCACAATAAA AGCTTGCAGCTAGAGGCACAGACATACCAGCGGATTCACGAGAAGATTCAGGAGAGGGGTCATGAACAATCTGGGG ACATGGATCGACTGGCAGTACCTACAGAATGCTGCCAAGCTCTTGGCCAAGTGTCGATACACCCTGCAATACACC TACCCATATGCATATTACATGGAGTCCGGACCCAGGAAGAAGCTGTTTGAATACCAGCAGGCTCAGCTGGAGGCT GAGATCGAAAACCTCTCATGGAAAGTGGAGCGTGCAGACAGCTATGACAGAGGGGACTTGGAGAACCAGATGCAT ATAGCGGAGCAGCGGAGGAGAACCCTGCTGAAAGATTTCCATGACACC<u>TAA</u>GTTGGGATGTGGATGTGCCGGGGT GAGGAAGATGTGGCTGCAAGGTCTCCCGGCTGCCATACTGCATGCTGCAGGCTCTGCCTTTCATGACCCCAGGCA ACAGCCAGGGCCCCACTCCTGAGAGACACTGGCAACACCTCTTAGTTGATTTCTGTTTTCTTCTCTTTTCACTTT TTGTTTCTACCAGGGTAGAGGCCATGTTGAACTGGCCTCTTTTCAGGACTTTTATTTCCCCCTGGATGGTTGTTG GGAGGGAGGGAAGTGTTTTCTGAATGGCTATTAATAGTATTAGATCATTACAACTTATGTAACTTTCAAAGGTT TGGAGTGTTTTACCCTCTAGCTGTTTTACTTAGAATGTAACATATGCTGCCTACCCACCTCAAAATGTCTGTACT GCAAGAGGGCCCTGGGCCTCTGCTTTCCATATTCACGTTTGGCCAGAGTTGTAGTCCCAAAGAAGAGCATGGGTG GCAGATGGTAGGGAATTGAACTGGCCTGTGCAATGGGCATGGAGCACAAGGGGTCACAGCATGCCTCCTGCCTTA CCGTGGCAGTACGGAGACAGTCCAGAACATGGTCTTCTTGCCACGGGGTGTTGTTGTCTCTGGTGGTGCTGCATG TCTGTGGCTCACCTTTATTCTTGAAACTGAGGTTTACCTGGATCTGGCTACTGAGGCTAGAGCCCACAGCAGAAT GGGGTTGGGCCTGTGGCCCCCAAACTAGGGGGTGTGGGTTCATCACAGTGTTGCCTTTTGTCTCCTAAAGATAGG AAGTGGTATAGCTCTGAGCAGGGTCACATTTGGCCAAACCTGACACTGTCTTGCTGCATTCTCCTTTGGCAAACA TCAGGGTCAGAATTCAGGATAGCCCTTCCTAGGGCACTGGACTTTCTGGCATGGGGGGCTGTGTTTGCACAAGTTA TTTTCATGTTACCTGGAGAGTGTCCAGAGGCTGCTCTGAGGCTGAGGTGTTCCCCCCTTGCCTGGTTCCAGCTG TCAGAGGGATACCATCCTAGGGTCTGGGAATCCAAGGCCACGAGACTCCTTGGTTTGTGGTCCGAGATCCTGTAC TAAGGAGGGTCTGGCCAGAGGAACAGACCAGCTTTTGCACAATGAAGCGCAAGGGAACAAGTGGTTTGCCTGGTG TCCTACCTGTCCTGAACCTGGTCCTGTGGGCCATTGAAAAGTTAGATCTGTGATCTCTGGGGTTTTTGTGGCTTT GTTCAATGCTTCCACTCTAGGGCAGGCAGAGCAGTCTATACTCTCCCAAGCCTGCTTGACCTCCAAGTAGAGCTG ATACAGAGATCTGTGAATATTGTGATAGAAATTCTTTGGTATTCATACATTTCAGCTGCAAGTCAGCAATTTCCCC AGGTACCATGTAAGCTATAAAACAGTCATTCTTAAAGACAGAGGATAGCTGTGACTCATGGGATCATGAGGTCCA TGGCTGGTTGCAGGTTCCCTTTTTCCTTCCTCAGGTTTTGTCTCTTCCTGTGTTGTCCCCAGCAAGGGAGAGACT GTGGGGTGGATTGGGAGAACAGATTAGGAGTATAGCAAATGAACCCAGAATGGAACAGTGGGGAGCTAACTGTGA CGTCTGGAGCCTTCACCTCTCCGTCAAGTCCTTCCTGTGATACTGCCATGGCACAGGATCTGAGTTGCAGCTCTG CACCCTAAATCACACCCTGGGCATTGTCTGGGCTGCAGGGCTGCCAGGTTCTGTACTTGTGTCCAGCTGTGGCCC

### 183/2682 FIGURE 170B

TGGATGCTGGAGGTTGTCTGTGCTCAGACTGTAGCCTGTAGCTCTTGGCCTGTAGAGCCCCCTCCT GTGCCCTCAGTGGCTGTCGTTTGTTAACATCATCAGGAAGATGGGAAAGGTCAGGCAGAATTTTTCTGCCCTACA AAGGGTGGAAGAGAAAAGGACACAGTATTTTCATGAATTTACCATATATCTTTGTTTTTCTTCAACGAAAAAGTTA ATTGAGGCAATGTCATCTGCTCAAAGTTGAGTGGTTTATTCACAATAAACTGTAAGTTTCTGATTAT

## 184/2682 FIGURE 171

MSVDMNSQGSDSNEEDYDPNCEEEEEEEEDDPGDIEDYYVGVASDVEQQGADAFDPEEYQFTCLTYKESEGALNE
HMTSLASVLKVSHSVAKLILVNFHWQVSEILDRYKSNSAQLLVEARVQPNPSKHVPTSHPPHHCAVCMQFVRKEN
LLSLACQHQFCRSCWEQHCSVLVKDGVGVGVSCMAQDCPLRTPEDFVFPLLPNEELREKYRRYLFRDYVESHYQL
QLCPGADCPMVIRVQEPRARRVQCNRCNEVFCFKCRQMYHAPTDCATIRKWLTKCADDSETANYISAHTKDCPKC
NICIEKNGGCNHMQCSKCKHDFCWMCLGDWKTHGSEYYECSRYKENPDIVNQSQQAQAREALKKYLFYFERWENH
NKSLQLEAQTYQRIHEKIQERVMNNLGTWIDWQYLQNAAKLLAKCRYTLQYTYPYAYYMESGPRKKLFEYQQAQL
EAEIENLSWKVERADSYDRGDLENQMHIAEQRRTLLKDFHDT

TAGCTAGGCAGGAAGTCGGCGCGGGGGGGGGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT TTACGTTCACCTCGGTGTCTGCAGCACCCTCCGCTTCCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCAC C<u>ATG</u>TCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAAACTATTGCGCC AGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGTCCCTTGCCGTCTGCAAAGCTGGTGCCGTTGA CAATGTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTCGGTGC AGCAAACTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCTCCGA GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCCAGCAGGTACATCTCGCCTGACCA GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA CTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCACAGTGACCAACCC AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCGGGGGA GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCCTTGCCG ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG  ${\tt CAGGAACTTCAGAAACCCCTTGGCCAAG{\color{red}{TAA}} GCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA}$ CCCCTCCCTCGTGTCAGCTCAGGCAGCTCGAGGCCCCCGACCAACACTTGCAGGGGTCCCTGCTAGTTAGCGCC CCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT GTGAGCCTCGTGTCATCTCCGGGGTGGCCACAGGCTAGATCCCCGGTGGTTTTTGTGCTCAAAATAAAAAGCCTCA GTGACCCATGAG

### 186/2682 FIGURE 173

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALELRDNDKTRYMGKGVSKAVEHINKTIAP ALVSKKLNVTEQEKIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF NVINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYGKDATNVGDEGGFAPNILENKEGLE LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGVMVSHRSGE TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSKAKFAGRNFRNPLAK

GGCTGAGGCAGTGGCTCCTTGCACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCCTGGAGCACATGTGCCGCCTGGACATTGATTCACCACC CATCACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACTTCTCTCATGGAACTCATGAGTACCATGCGGAGACCATCAA GAATGTGCGCACAGCCACGGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCGTTGCTGTGGCTCTAGACAC TAAAGGACCTGAGATCCGAACTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC TCTCAAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT CTGCAAGGTGGTGGAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG TGCCGACTTCCTGGTGACGGAGGTGGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCCTGGGGC TGCTGTGGACTTGCCTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT GGTGTTTGCGTCATTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCCTGGGAGAAAGGAAAGGAAAGAA CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCTGCAGAGAAGGTCTTCCTTGCTCAGAAGATGATGAT TGGACGGTGCAACCGAGCTGGGAAGCCTGTCATCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT CTACCACTTGCAATTATTTGAGGAACTCCGCCGCCTGGCGCCCATTACCAGCGACCCCACAGAAGCCACCGCCGT GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTCACCAAGTCTGGCAGGTCTGCTCA CCAGGTGGCCAGATACCGCCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG GGTGAACTTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG  ${\tt ATGGCGCCCTGGCTCCGGCTTCACCAACACCATGCGTGTTGTTCCTGTGCCG} {\tt TGA} {\tt TGGACCCCAGAGCCCCTCCT}$ AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTTTTGCAGCCT TGGACTGGAGCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTCCTGTGTGTACTCTGTCCAGTTCCT TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTTGCCCTTACTTGCTTCTCTAGGCC CTCTCCAGTTTGCACCTGTCCCCACCCTCCACTCAGCTGTCCTGCAGCAAACACTCCACCCTCCACCTTCCATTT TCCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCGC

### 188/2682 FIGURE 175

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPPITARNTGIICTIGPASRSVETLKEMIKSGMNVARLN FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKGSGTAEVELKKGATLKITLDNAYME KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPAVSEKD IQDLKFGVEQDVDMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE IPAEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAPI IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM RVVPVP

### 189/2682 FIGURE 176

CGGCCCCAGACCGGCCTGTCCTTCCTGGGCCCTGAGCCTGAGGACCTGGAGGACCTGTACAGCCGCTACAAGAAG CTGCAGCAAGAGCTGGAGTTCCTGGAGGTGCAGGAGGAATACATCAAAGATGAGCAAAAGAACCTGAAAAAAGGAA TTTCTCCATGCCCAGGAGGAGGTGAAGCGAATCCAAAGCATCCCGCTGGTCATCGGACAATTTCTGGAGGCTGTG GAGCTGCTCAAGCCCAACGCCTCAGTGGCCCTCCACAAGCACAGCAATGCACTGGTGGACGTGCTGCCCCCCGAA GCCGACAGCAGCATCATGATGCTCACCTCAGACCAGAAGCCAGATGTGATGTACGCGGACATCGGAGGCATGGAC ATCCAGAAGCAGGAGGTGCGGGAGGCCGTGGAGCTCCCGCTCACGCATTTCGAGCTCTACAAGCAGATCGGCATC GATCCCCCCGAGGCGTCCTCATGTATGGCCCACCTGGCTGTGGGAAGACCATGTTGGCAAAGGCGGTGGCACAT CACACAACAGCTGCATTCATCCGGGTCGTGGGCTCGGAGTTTGTACAGAAGTATCTGGGTGAGGGCCCCCGCATG GTCCGGGATGTGTTCCGCCTGGCCAAGGAGAATGCACCTGCCATCATCTTCATAGACGAGATTGATGCCATCGCC ACCAAGAGATTCGATGCTCAGACAGGGGCCGACAGGGAGGTTCAGAGGATCCTGCTGGAGCTGCTGAATCAGATG GATGGATTTGATCAGAATGTCAATGTCAAGGTAATCATGGCCACAAACAGAGCAGACACCCTGGATCCGGCCCTG ACTATCACTAGCAAGATGAACCTCTCTGAGGAGGTTGACTTGGAAGACTATGTGGCCCGGCCAGATAAGATTTCA GGAGCTGATATCAACTCCATCTGTCAGGAGAGTGGAATGTTGGCTGTCCGTGAAAACCGCTACATTGTCCTGGCC AAGGACTTCGAGAAAGCATACAAGACTGTCATCAAGAAGGACGAGCAGGAGCATGAGTTTTACAAG**TGA**CCCTTC CCTTCCCTCCACCACACCACTCAGGGGCTGGGGCTTCTCTCGCACCCCCAGCACCTCTGTCCCAAAACCTCATTC 

### 190/2682 FIGURE 177

MEEIGILVEKAQDEIPALSVSRPQTGLSFLGPEPEDLEDLYSRYKKLQQELEFLEVQEEYIKDEQKNLKKEFLHA QEEVKRIQSIPLVIGQFLEAVDQNTAIVGSTTGSNYYVRILSTIDRELLKPNASVALHKHSNALVDVLPPEADSS IMMLTSDQKPDVMYADIGGMDIQKQEVREAVELPLTHFELYKQIGIDPPRGVLMYGPPGCGKTMLAKAVAHHTTA AFIRVVGSEFVQKYLGEGPRMVRDVFRLAKENAPAIIFIDEIDAIATKRFDAQTGADREVQRILLELLNQMDGFD QNVNVKVIMATNRADTLDPALLRPGRLDRKIEFPLPDRRQKRLIFSTITSKMNLSEEVDLEDYVARPDKISGADI NSICQESGMLAVRENRYIVLAKDFEKAYKTVIKKDEQEHEFYK

GTTCTCTCATCGCTTCGTCGTTCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAGATGGGAGGCGAG GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGTCTTGAGATGTATAATATACTAAAAGCA GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAAGATAGCAAGCCAATTAAAGTCACTTTGCCTGATGGTAAA CAGGTTGATGCGGAATCTTGGAAAACTACACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCTCTGGAAGAAGATTGTACCTTGGAGCTT CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGGCATGGAA AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA GAAAGACTGGAAGTTAAGAAAGAAACTTTACTGGCAATGTTTAAGTACAACAAGTTCAAATGCCGGATATTGAAT GAAAAGGTGAATACTCCAACTACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCCTCATGTT AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAAAGCAGATATG GAGACTCTCCAGAGAATTTATGGCATTTCATTCCCAGATCCTAAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCACTTATTGAATTCATTAGGAGCGAATATAGGAAA AGAGGATTCCAGGAGGTAGTCACCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCCTGAAACCCATGAACTGCCCAGGACAC  ${\tt TCCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAACTGCCTCTGCGGCTAGCTGATTTTGGGGGTCTTCAT}$ AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTCCAACAGGATGATGCTCACATATTC TTTTCTTTTAAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAG **AAACAACTTGAAAACAGTCTGAATGAATTTGGTGAAAAGTGGGAGTTAAACTCTGGAGATGGAGCTTTCTATGGC** CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACCAGTGTGCAACCATCCAGCTGGATTTCCAG TTGCCCATCAGATTTAATCTTACTTATGTAAGCCATGATGGTGAGGATAAGAAAAGGCCAGTGATTGTTCATCGA GCCATCTTGGGATCAGTGGAAAGAATGATTGCTATCCTCACAGAAAACTATGGGGGCCAAATTGGCCCCCTTTTGG CTGTCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCCAAAACGTACGACAACAA TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTCGAAATGCA CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAAATCACTGGCACTGTTAATATCCGCACA AGAGACAATAAGGTCCACGGGGAACGCACCATTTCTGAAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC AGCAAACAGGCAGAAGAAGAATTT<u>TAA</u>TGAAAAAATTACCCAGATTGGCTCCATGGAAAAAGGAGGAACAGCGTTT CCGTAAAATTGACTTTGTACTCGAAAACGTCAATTTATATTGAACTTGGAGGAGGAGTTTGGCAAAGTCTGAAAT AGAGAGCCAATAAAATGATTTTACTCATTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTAGTGTA ATGTGGGAGAACTTTTTTGTAAATTTAATGCAATTGAAAAAGTTTTCAAATTCAATTAAGATAACTAGAATTGGT TATGGTGTAACCCGAATTC

#### 192/2682 FIGURE 179

MGGEEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWPEYIYTRLEMYNILKAEHDSILAEKAEKDSKPIKVTL
PDGKQVDAESWKTTPYQIACGISQGLADNTVIAKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG
EGMERVYGGCLCYGPPIENGFYYDMYLEEGGVSSNDFSSLEALCKKIIKEKQAFERLEVKKETLLAMFKYNKFKC
RILNEKVNTPTTTVYRCGPLIDLCRGPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG
HWQHYSENMFSFEVEKELFALKPMNCPGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQQDD
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDIEVWDQAEKQLENSLNEFGEKWELNSGDG
AFYGPKIDIQIKDAIGRYHQCATIQLDFQLPIRFNLTYVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL
APFWLSPRQVMVVPVGPTCDEYAQNVRQQFHDAKFMADIDLDPGCTLNKKIRNAQLAQYNFILVVGEKEKITGTV
NIRTRDNKVHGERTISETIERLQQLKEFRSKOAEEEF

GGCACGAGGATTCGCTGCTCCGCAGCACGGCCGGAGCTGGTCCGGTCAAGAGTCGGGATTTGTGGGGAGAGGTTT TCCACTGGTCAAGAAGACGTTTAAGAAAGACGGTATTAATCTCCCGTTGCGGCTCCCGCCTGGTCCCATCTTCT GCCCGCTCCTCCAGGAA**ATG**AATCTGCTGCCGAATATTGAGAGTCCAGTGACTCGGCAGGAGAAGATGGCGACCG TGTGGGATGAGGCCGAGCAAGATGGAATTGGGGAGGAGGTGCTCAAGATGTCCACGGAGGAGATCATCCAGCGCA CACGGCTGCTGGACAGTGAGATCAAGATCATGAAGAGTGAAGTGTTGAGAGTCACCCATGAGCTCCAAGCCATGA AGGACAAGATAAAAGAGAACAGTGAGAAAATCAAAGTGAACAAGACCCTGCCGTACCTTGTCTCCAACGTCATCG AGCTCCTGGATGTTGATCCTAATGACCAAGAGGAGGATGGTGCCAATATTGACCTGGACTCCCAGAGGAAGGGCA TAAAGCCAGGAGACCTGGTGGGTGTGAACAAAGACTCCTATCTGATCCTGGAGACGCTGCCCACAGAGTATGACT CGCGGGTGAAGGCCATGGAGGTAGACGAGAGGCCCACGGAGCAATACAGTGACATTGGGGGTTTGGACAAGCAGA TCCAGGAGCTGGTGGAGGCCATTGTCTTGCCAATGAACCACAAGGAGAAGTTTGAGAACTTGGGGATCCAACCTC CAAAAGGGGTGCTGATGTATGGGCCCCCAGGGACGGGAAGACCCTCCTGGCCCGGGCCTGTGCCGCACAGACTA AGGCCACCTTCCTAAAGCTGGCTGGCCCCCAGCTGGTGCAGATGTTCATTGGAGATGGTGCCAAGCTAGTCCGGG ATGCCTTTGCCCTGGCCAAGGAGAAGCGCCCTCTATCATCTTCATTGATGAGTTGGATGCCATCGGCACCAAGC GCTTTGACAGTGAGAAGGCTGGGGACCGGGAGGTGCAGAGGACAATGCTGGAGCTTCTGAACCAGCTGGATGGCT TCCAGCCCAACACCCAAGTTAAGGTAATTGCAGCCACAAACAGGGTGGACATCCTGGACCCCGCCCTCCTCCGCT CGGGCCGCCTTGACCGCAAGATAGAGTTCCCGATGCCCAATGAGGAGGCCCGGGCCAGAATCATGCAGATCCACT CCCGAAAGATGAATGTCAGTCCTGACGTGAACTACGAGGAGCTGGCCCGCTGCACAGATGACTTCAATGGGGCCC AGTGCAAGGCTGTGTGTGGGAGGCGGGCATGATCGCACTGCGCAGGGGTGCCACGGAGCTCACCCACGAGGACT AAAAAAAAAAAAA

# 194/2682 FIGURE 181

MNLLPNIESPVTRQEKMATVWDEAEQDGIGEEVLKMSTEEIIQRTRLLDSEIKIMKSEVLRVTHELQAMKDKIKE
NSEKIKVNKTLPYLVSNVIELLDVDPNDQEEDGANIDLDSQRKGKCAVIKTSTRQTYFLPVIGLVDAEKLKPGDL
VGVNKDSYLILETLPTEYDSRVKAMEVDERPTEQYSDIGGLDKQIQELVEAIVLPMNHKEKFENLGIQPPKGVLM
YGPPGTGKTLLARACAAQTKATFLKLAGPQLVQMFIGDGAKLVRDAFALAKEKAPSIIFIDELDAIGTKRFDSEK
AGDREVQRTMLELLNQLDGFQPNTQVKVIAATNRVDILDPALLRSGRLDRKIEFPMPNEEARARIMQIHSRKMNV
SPDVNYEELARCTDDFNGAQCKAVCVEAGMIALRRGATELTHEDYMEGILEVQAKKKANLQYYA

GGCACCGCGGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCCGTGCGGCGGCGGCCAAGGAGGAGGAGACACA GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGCGGCCGAGCCTGCGGCGC  $\tt CTTCCCCTGCGGGTGGGGACGAGCGGGCCCCCGCGCGCGTCATCGGCGGGGAGGAGCCGCCGCGCCTCGGCCTAGC\underline{\textbf{A}}$  $\underline{\mathtt{TG}}\mathtt{TCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGGACGGCCCCCGAGAACGGACATGAGGCCGTCCCCGAAG$ GAACGGCGCCGAGGGACCAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGAAAAATGTTCGTTGGTGGCCTGA GCTGGGATACTAGCAAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAATAAAAA TGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAAGGCCATGGCTATGAAGAAGGACCCGG TCAAGAAAATCTTCGTTGGGGGTCTGAATCCTGAAAGTCCCACTGAGGAAAAGATCAGGGAGTACTTTGGCGAGT TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAGACGAGGTTTTGTGTTTATCACCT TTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCATACTGTCAGTGGAAGCAAGTGTGAGATCA AGGTGGCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAAACCGCAACCGAGGGA ACCGAGGCAGCGGAGGTGGTGGAGGTGGAGGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA ACCAGGGCTACGGCCTACGGGCCTACGGGCCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA GAACACAATTATGTACCAAATTTAACTTGGCAAACTTTCTATTGCCTGTCCCATGTGCATCTTATTTAAAATTTC CATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGAGAGGCTCTGCTTCCTGCTGCCG CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTGTCACCTTTTTTT CACCTTTTAATTTTATATTATTTGCGTCATACATTTCCTGTAACGGAAGTGTTAATTTTACTGTACTTTTTGGTA CCCCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGGATATTGAAGC 

# 196/2682 FIGURE 183

MSEAGEEQPMETTGATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGL SWDTSKKDLKDYFTKFGEVVDCTIKMDPNTGRSRGFGFILFKDAASVEKVLDQKEHRLDGRVIDPKKAMAMKKDP VKKIFVGGLNPESPTEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVFITFKEEEPVKKVLEKKFHTVSGSKCEI KVAQPKEVYQQQQYGSGGRGNRNRGNRGSGGGGGGGGGGGGGYGNWQGYGYYWNQGYGYQQGYGPGYGGYDYSPYGYY GYGPGYDYSQGSTNYGKSQRRGGHQNNYKPY

TAGCTGGATTCCAGCCATTGCTGCAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCCGCTGTTCCC AGGATGGTGATCCGTGTATATATTGCATCTTCCTCTGGCTCTACAGCGATTAAGAAGAAACAACAAGATGTGCTT GGTTTCCTAGAAGCCAACAAAATAGGATTTGAAGAAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG AGAGAAAATGTACCTGAAAATAGTCGACCAGCCACAGGTTACCCCCTGCCACCTCAGATTTTCAATGAAAGCCAG TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAATAATGCAGTGTATGCCTTCTTAGGCTTGACAGCC  ${\tt CCACCTGGTTCAAAGGAAGCAGAAGTGCAAGCAAAGCAGCA}{{\tt TGA}{\tt ACCTTAAGCACTGTGCTTTAAGCATCC}$ TGAAAAATGAGTCTCCATTGCTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAAGAAATAGGCTTAATGTTGA AATAATAGATTAGTTGGGTTTTCACATGCAAACATTCAAAATGAATACAAAATTAAAATTTGAACATTATGGTGA TTATGGTGAGGAGAATGGGATATTAACATAAAATTATTAATAAGTAGATATCGTAGAAATAGTGTTGTTACCT GCCAAGCCATCCTGTATACACCAATGATTTTACAAAGAAAACACCCTTCCCTCCTTCTGCCATTACTATGGCAAC TTAAGTGTATCTGCAGCTCTACATTAAAAAGGAGAAAAGAGAAATAACCTGTCTCTCATTCCTAAGTTGCCTCATT AATTTTCATGAACAAGAATATGTACCTTTTTGATGCTATATTACTGCGATTAAAAAAGTTCTTGCAGGTAATGTT TATGTATAGTTAAACGTTGTAATTTCTTATCGTAATTATAACATTCCCATTCTTTGTAGATGAAACTCTACATAT GAACCACAGATTTTCTGAGCTTCTAAATGTAGCCTTTCATTGCACATTTCAGTGATCAGAATAGATATCCTTTTA CACGCACAAAAGCAATAGATTCATTCAGTGGACAAGTTCCTTGTTTAACTACACAGCTATGATGGAATCATATAT CCAAGTTCCTTGCCTCAGTGAAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAAATGCATTC TCTAGCAAAGAGATTAGACTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCCAAGATTGGTTTCCCT TGAGTTTTTGTTAAAACAAATCTTAGTAGTTTTGCCCGTTTAAAACAACTCACAATCGTAAATGCTACTATTCCT AAGATATCTTACCTTTTTATTTCAGTTTAGCCATGTATTGTATGAGTGTATTAGTCTAAGCAGTGAGAATCTTTT CTATGCCTCTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAAGGGCAACTTTTAAAATATTAAGCCTGAAGACT TCTAAAAAGACAAGAAACATGGCCTAAATAACCAACATAGATTTACATAGTTAAGTTTCACACTACCTTATTACCA AAAGCAAACACCTCTTACTTTAAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTACTTTTTGCCAAAA TCAACATATAATGAAGAGATGCCTTTGTTTGATGAGATTCAAACTTGATGCTATGCTTTAAAATAAACTCAGTAC 

# 198/2682 FIGURE 185

 ${\tt MVIRVYIASSSGSTAIKKKQQDVLGFLEANKIGFEEKDIAANEENRKWMRENVPENSRPATGYPLPPQIFNESQYRRGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA}$ 

### 199/2682 FIGURE 186

# 200/2682 FIGURE 187

MAERGYSFSLTTFSPSGKLVQIEYALAAVAGGAPSVGIKAANGVVLATEKKQKSILYDERSVHKVEPITKHIGLV YSGMGPDYRVLVHRARKLAQQYYLVYQEPIPTAQLVQRVASVMQEYTQSGGVRPFGVSLLICGWNEGRPYLFQSD PSGAYFAWKATAMGKNYVNGKTFLEKRYNEDLELEDAIHTAILTLKESFEGQMTEDNIEVGICNEAGFRRLTPTE VKDYLAAIA

GCGATTCGGTGGCACGTGGAGCCACGGCGTGGGAGTAGGGGGCTGAAGGCAGCAGCAGCAGCCAGGGCCACCCCT  ${\tt CCGAGGGCTTCTGAAGCCAGGCCTCAATGTCGTGCTAGAGGGGCCGAAGAAGGCCGTGAACGACGTGAATGGCCT}$ GAAGCAATGTTTGGCAGAATTCAAGCGGGATCTGGAATGGGTTGAAAGGCTCGATGTGACACTGGGTCCGGTACC GGAGATCGGTGGATCTGAGGCGCCAGCACCTCAGAACAAGGACCAGAAAGCTGTTGATCCAGAAGACGACTTCCA GCGAGAGATGAGTTTCTATCGCCAAGCCCAGGCCGCAGTGCTTGCAGTCTTACCCCGCCTCCATCAGCTCAAAGT CCCTACGAAGCGACCCACTGATTATTTTGCGGAAATGGCCAAATCTGATCTGCAGGTGCAGAAGATTCGACAGAA GCTGCAGACTAAACAGGCTGCCATGGAGAGGTCTGAAAAAGCTAAGCAACTGCGAGCACTTAGGAAATACGGGAA GAAGGTGCAAACGGAGGTTCTTCAGAAGAGGCAGCAGGAGAAAGCCCATATGATGAATGCTATTAAGAAATATCA GAAAGGCTTCTCTGATAAACTGGATTTCCTTGAGGGAGATCAGAAACCTCTGGCACAGCGCAAGAAGGCAGGAGC GAAGAAAGGCTCAAAGTGGAACACTCGGGAGAGCTATGATGATGTATCTAGCTTCCGGGCCAAGACAGCTCATGG CAGAGGCCTCAAGAGGCCTGGCAAGAAAGGGTCAAATAAGAGACCTGGAAAACGAACAAGAGAGAAGATGAAGAA  ${\tt CAGAACACCTAA}$  ATAGCATCTTTGAATACAAAGAACCAAGAAAAAGGAATGAAGACTCGCAATTTCACGACACA TTGAGTTCAAATTGCCTTCATTTTATGATAAATAATGATTTAACTGAAAA

# 202/2682 FIGURE 189

MDTPPLSDSESESDESLVTDRELQDAFSRGLLKPGLNVVLEGPKKAVNDVNGLKQCLAEFKRDLEWVERLDVTLG PVPEIGGSEAPAPQNKDQKAVDPEDDFQREMSFYRQAQAAVLAVLPRLHQLKVPTKRPTDYFAEMAKSDLQVQKI RQKLQTKQAAMERSEKAKQLRALRKYGKKVQTEVLQKRQQEKAHMMNAIKKYQKGFSDKLDFLEGDQKPLAQRKK AGAKGQQMRKGPSAKRRYKNQKFGFGGKKKGSKWNTRESYDDVSSFRAKTAHGRGLKRPGKKGSNKRPGKRTREK MKNRTH

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCCTCCGCTGGAGCAGCT<u>A**TG**</u>GCGGCGGTGAAGACCCT GAACCCCAAGGCCGAGGTGGCCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGCGGGGTCTGCAGGA CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACTTAC TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTCAACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA TCTCTACATTTCTGAAGGCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA GTTTTTGGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG TACTAAAGTTCATGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAAGCA AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC AAAACTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAACTGAAAAGGAAAGTCTG TGGCGATTCAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAAA CCTGAATTCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCCTCGTTCTGTCACATTATTGATCAAAGGACCAAATAAGCA CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCCAGTGTAAAGGGCAG GGCACAGCTTGGAGTCCAAGCATTTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT TGACCTTCAGGAAACATTAGTTAAAATTCAAGCAGAACATTCAGAATCAGGTCAGCTTGTGGGTGTGGACCTGAA CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC  $\tt CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGT\underline{TG}$ AATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT CCAAGCTTCAAATAATTTTGAAAGAAATTTTCCCATATGAAAAAAGGAGAGAACACTGGCATCTGTTGAAATTTG GAAGTTCTGAAATTATAGTATTTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA AATATTTCTTGAAAAGCAAATTTTAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAAACTACCCTATTG TTAAGCATTTGGTTTTAAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAAATATTGAAAGCATCCCTGTT GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT CCCGCCACAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA CCTCAAAAAAAA

# 204/2682 FIGURE 191

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTKDGNVLLHEMQIQHPTAS LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEAAKEKALQFLEEVKVSREMDRETLID VARTSLRTKVHAELADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSLIRGLVLDHGARHPDMKKRV EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCGDSDKGFVVINQKGIDPF SLDALSKEGIVALRRAKRRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCTVIATNILLVDEIMRAG MSSLKG

CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACTTAC TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTCAACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC AGCCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA TCTCTACATTTCTGAAGGCCTTCATCCTAGAATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA GTTTTTGGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG TACTAAAGTTCATGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAAACTGATACAAGCTTAAT CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC AAAACTCGTGAAAGCTGAAAGAAAATTCATTGAAGATAGGGTTAAAAAAATAATAGAACTGAAAAGGAAAGTCTG TGGCGATTCAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAAA CCTGAATTCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGTATATGAGTATACATTGGGAGA AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCCTCGTTCTGTCACATTATTGATCAAAGGACCAAATAAGCA CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCCAGTGTAAAGGGCAG GGCACAGCTTGGAGTCCAAGCATTTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT TGACCTTCAGGAAACATTAGTTAAAATTCAAGCAGAACATTCAGAATCAGGTCAGCTTGTGGGTGTGGACCTGAA CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC  $\tt CTGCACTGTGATTGCCACCAACATTCTCTTGGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGT{\color{red}{\bf TG}}$ **A**ATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT CCAAGCTTCAAATAATTTTGAAAGAAATTTTCCCATATGAAAAAAGGAGAGAACACTGGCATCTGTTGAAATTTG GAAGTTCTGAAATTATAGTATTTTTAAAAATTGCACTGAAGTGTATACACATAAAGCAGGTCTTTTATCCAGTGA AATATTTCTTGAAAAGCAAATTTTAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAAACTACCCTATTG TTAAGCATTTGGTTTTAAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAAATATTGAAAGCATCCCTGTT GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGACTAAGGGCCACGGTTATTGGGTGAAATTTG AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA CCTCAAAAAAAA

# 206/2682 FIGURE 193

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTKDGNVLLHEMQIQHPTAS
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEAAKEKALQFLEEVKVSREMDRETLID
VARTSLRTKVHAELADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSLIRGLVLDHGARHPDMKKRV
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIELKRKVCGDSDKGFVVINQKGIDPF
SLDALSKEGIVALRRAKRRNMERLTLACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIIPKV
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCTVIATNILLVDEIMRAG
MSSLKG

### 207/2682 FIGURE 194A

 ${\tt GGCCCCA} {\color{blue} {\bf ATG}} {\tt AGGCCACAGTCTACTATCACCGACAGGTTTCCCCTCAAAAAACCTATAAGGCATGGAAGTAT}$ TTTGAACCGAGAGTCACCAACAGATAAGAAGCAGAAAGTTGAGCGCATTGCATCACATGATTTTGACCCCACAGA TAGCTCCTCCAAGAAGACAAAGTCTAGTTCAGAGGAGAGATACCGAGATATATGGTCTTGTTCAGCGTTGCGT AATCATCCAGAAAGATGACAATGGATTTGGGCTGACGGTCAGTGGAGACAATCCAGTCTTCGTACAGTCTGTCAA AGAAGATGGAGCAGCCATGCGGGCTGGAGTACAGACAGGTGATCGAATCATCAAGGTGAATGGAACTCTGGTGAC TCATTCAAATCATCTGGAGGTGGTGAAGCTAATCAAATCTGGTTCCTATGTAGCTCTCACTGTTCAGGGACGCCC GACATCTCCTCATTCACCTGGAGCATCTGGGAATATGGAGAGAATCACTAGTCCTGTGCTCATGGGGGAGGAAAA GCAGGAAGATTACAACCGAACACCTGCCCAAAGATTGCTAAAAGAGATCCAAGAGGCCAAGAAACACATTCCTCA GCTGCAAGAGCAGTTATCCAAAGCCACAGGCTCTGCTCAGGATGGAGCTGTAGTTACACCCTCCAGACCTTTAGG TGCTTCTCGGCCCAGTAGTGACAATGCAGATAGTCCCAAGAGTGGCCCAAAAGAGAGAATTTATCTAGAGGAAAA CCCAGAGAAAAGTGAAACAATTCAGGACACTGACACTCAATCACTTGTCGGAAGTCCCTCAACCCGTATAGCACC TCATATTATTGGAGCAGAAGATGATGATTTTGGTACTGAACATGAACAGATCAATGGACAGTGCAGCTGTTTCCA GAGCATTGAATTACTAAAATCTCGCCCGGCTCATTTGGCTGTTTTCTTACACCATGTAGTTTCACAATTTGACCC TGCGACTTTGCTCTGTTATCTCTATTCAGACCTGTATAAACATACCAATTCCAAAGAAACTCGTCGCATCTTCCT TGAGTTTCATCAGTTCTTTCTAGATCGATCAGCACACCTGAAAGTTTCTGTTCCTGATGAAATGTCTGCAGATCT AGAAAAGAGAAGACCTGAGCTCATTCCTGAGGATCTGCATCGCCACTATATCCAAACTATGCAAGAAAAGAGTCCA TCCAGAAGTTCAAAGGCACTTAGAAGATTTTCGGCAGAAACGTAGTATGGGACTGACCTTGGCTGAAAGCGAGCT GACTAAACTTGATGCAGAGCGAGACAAGGACCGATTGACTTTGGAGAAGGAGCGGACATGTGCAGAACAGATTGT TGCCAAAATTGAAGAAGTATTGATGACTGCTCAGGCTGTAGAGGAAGATAAGAGCTCCACCATGCAGTATGTTAT TCTCATGTATATGAAGCATTTGGGAGTAAAAGTGAAAGAGCCTCGAAATTTGGAGCACAAACGGGGTCGGATTGG ATTTCTTCCCAAAATCAAGCAAAGTATGAAGAAAGATAAAGAAGGGGAAGAAAAAAGGGAAGCGAAGAAGATTCCC CAGCATCCTGGGACCCCCACGGAGACCAAGCCGTCATGACAACAGTGCAATTGGCAGAGCCATGGAACTACAGAA GGCGCGCCACCCTAAGCACTTATCCACACCCTCATCTGTGAGTCCTGAACCTCAGGACTCTGCCAAGTTGCGCCA CTCTTTTTCCCAGGAAGGAGGGAAAGAATGATACAGGATCAAAGCAAGTTGGAGAAACATCAGCACCTGGAGA CACCTTAGATGGCACACCTCGTACTCTCAATACTGTCTTTGATTTCCCACCACCTCCATTAGACCAAGTGCAGGA GGAGGAATGTGAAGTAGAAAGGGTGACTGAACATGGGACACCAAAGCCCTTTCGAAAGTTTGACAGTGTAGCTTT TAGTCGAGAAGTGTTACTGGGACTAAAACCTTGTGAAATCAAAAGACAGGAAGTGATTAATGAATTGTTCTACAC TGAAAGAGCTCATGTTCGAACACTGAAGGTTCTTGATCAAGTGTTCTATCAGCGAGTATCCAGAGAAGGAATTCT AATGAAGGCTGTTCGAAAGAGAAATGAGACCTCTGTTATCGATCAGATTGGGGAAGATTTGCTGACATGGTTCAG CAAATCTCGTCAGAAAAAGGATTCTCGATTTCAGACTTTTGTGCAAGATGCTGAAAGTAATCCACTGTGTCGTCG TCTTCAACTGAAGGATATTATTCCCACTCAAATGCAAAGGCTTACTAAGTACCCACTTCTGTTGGATAATATTGC CAAATACACAGAATGGCCAACAGAAAGGGAGAAGGTGAAGAAGCTGCAGATCACTGTCGTCAGATCTTAAATTA TGTAAATCAGGCTGTCAAGGAGGCAGAAAACAAGCAGCGCCTAGAAGATTATCAGCGTCGCCTTGATACCTCCAG CCTGAAGTTGTCAGAGTACCCAAATGTTGAAGAGCTCAGGAATTTGGATTTAACAAAAAGGAAGATGATTCATGA AGGGCCATTGGTTTGGAAGGTGAATAGAGATAAAACTATTGATTTATACACGTTGCTGCTGGAAGACATTCTTGT ATTGTTACAAAAGCAGGATGATAGACTGGTTTTAAGGTGTCATAGTAAGATTCTGGCATCTACAGCTGATAGCA'A ACACACGTTTAGCCCTGTCATTAAGTTGAGTACAGTGTTGGTTCGACAAGTGGCAACAGATAACAAAGCTTTATT GCAGGACCTAATCTGTCGGATGGCTGCATCAGTGAAGGAGCAATCCACAAAGCCAATTCCATTACCACAGTCAAC ACCTGGCGAAGGAGATAATGATGAAGAAGATCCTTCAAAATTAAAAGAGGAGCAGCATGGCATTTCAGTCACTGG TTTGCAGAGTCCAGACAGAGATTTGGGATTAGAATCTACCTTAATATCGTCAAAACCTCAGTCTCATTCACTGAG

### 208/2682 FIGURE 194B

TACCTCTGGGAAATCAGAGGTACGTGATCTGTTTGTGGCTGAGAGACAGTTTGCAAAGGAACAACATACAGATGG GGCATTGGATGCACTAAGAAATTTGGGTTTGTTGAAGCAGTTGCTGGTGCAACAGCTAGGTTTGACTGAGAAGAG GAACTCTGAAAATATTAAGGCCTATCATTCTGGTGAAGGACATATGCCCTTTAGAACTGGAACTGGTGACATTGC AACTTGTTACAGTCCACGGACTTCAACTGAA'TCTTTTGCTCCACGGGATTCAGTGGGACTGGCACCCCAGGATAG CCAGGCAAGTAACATTTTAGTAATGGACCACATGATTATGACCCCAGAGATGCCTACCATGGAGCCAGAAGGGGG TCTTGATGACAGTGGAGAGCACTTTTTTGATGCCCGTGAAGCACATAGTGATGAGAATCCATCAGAAGGTGATGG AGCAGTTAACAAGGAAGAAGGATGTTAATTTACGCATCTCAGGAAACTATTTGATCCTTGATGGCTATGACCC AGTGCAGGAGAGTTCCACAGATGAGGAGGTTGCTTCCTCACTTACCCTGCAGCCCATGACAGGCATCCCTGCTGT ATTTCTGGTCCAGCAGCGCTGGGGAGCTATGGAGTATTCCTGTTTTGAGATCCAGAGTCCCTCCTCTTGTGCAGA TTCACAGAGCCAGATCATGGAGTACATTCATAAGATAGAGGGCTGACCTTGAACACTTAAAGAAGGTGGAGGAAAG  $\verb|TTACACCATTCTTTGCCAAAGGCTGGCTGGATCAGCCCTCACAGACAAGCACTCAGATAAAAGT<u>TAGAGCCGCAT</u>|\\$ GTCCTGGAGGTGACTGCAGGTTGTTGGAGTTTGGAGTATCGGCCGTGTCTCACCACATCCTGGCTCCAGTGTGGAT GCAGAGAGAGTGTGACAGAGGATCTGCCTGTGAACCACCTGGGATTAGTCAAGTCCCAAGGTGCCCAGAGTGGGA CTAGTTCTTCACAGTGTGGCAGCTGCACTAATCTGTTTGTGAGGGAATATCCATTCCCTCACTCTACTCTCCTCA CTATCGGAAATTCATTTTGATTCAGAATAAAAACCAAATGTATAGAGCTTTGGGTGTAGGATATGAAATTGTACT TAGATTTAAGAAAAAGAGAAAATCAGATGTATTTATTTGACTTCATTCCGTATTTGAAAGCACATTTTAATTTTT ATTTGCCTTGTTTTGTTTTAATTGAGTAGTGAGAGTTTTAGACCTTTGTCTTTAGTACACCCAAGGATCAACTGC TCCTGAAGCAAAGAGGTCAGGATGGAGTATGCAGAAGTTGGGTAGAGAGGGTTAAGAAGAGGAGGAAGTGAGACGG GGAAGGGAGGAGCACCTTGCTTCACTATACAGTATTCCAAGCTCTCTGCTGTCCAGTAGGCTGCTTCTCTGAGGG TCACCTCAAAGGTATGCTATGCCGTGTGGCTCTTATGTGCCCAGGTGGTGTGGTCAGAGAGTGGATGGGCTTCCT CCCGCCCTGAGGCAAGCACCTCTTCTCTGTAGCTGGGATCAACCACAATTAATAGGAATCCTCAACATACTAAAT GGAAAGCAAATTTTATTTTCTTGACTATAAATTTGTTATTCTTGGTATCATTTCATTTTTATAATTATACATTAG ACATTGGCACTTGTGTAAAACTGTCCCTGCAGATTGAGCAGGAAGTAAAAACAAATGGAAATGCTTCGGATAGTG GCAGGGGTGGGGTTGCTAAGGAAAGGGTGGGATGGGAGTGGGTAAAGAGTTTGGGAAGGTTATCTAACTGAATC ACTACTGAGTTGAATCATGGCTATCATTAGCCACAGGTACTGCTGATTATAAGGCCAGTAAAATTTTAGTACCTG GAGGTTTGACTCTAATTTTTGCACTGATGGTGCCAAAGGGCCCTGAGTCAAAAGGATAGCCAAGGGTGGAGTGGA AAAAGATATGGTGAAGGCAGAACTGCTCACACCAGCTCCAGAAGCACGTCCTCTGACTTCACTGCCGCAGCTCTT TCCACACGGGGCCGTGATTGACCCTAAAAATTGCAGACCAGCACATACACTGGACACTGCAGGCAAGGTGTTGGT AACTGCCTGCTCTAGGATGAATAGTAGCGTTAGCAGCACCCTACAGAGGGTAAGTTTCAGAATTGTAATTTGAGA ACTCCTTCAATTATTGACTTTCTTTGGTTTTCCTTGTGCATTAGGTATATTTTTTTGAAGTATTTTTTGCCAA CTAAAATGAAGTCTGTAAATTCTGTTAATAAACAAGGAGTTCATCCGTTGCTCACATCTTTCATTGGTGCCCTCT GAACTCTGTGGGTTGCTAGGATGTAATTTTAATGCTTCCCTGCAGTCCAAAGATGATTTTTTCACCACAAATGGT CTGTCCTAAATTGATCTGTGTTTTTAGGTGGATCAACTTGGATCTTTAGACCTCATCTATAAATTGAAATTATAT TTTTAGTCATAAGCCAAGTACAATCTAACTCAGAATGGGATTAAAAATTTTAGAAGCAGAAGCTAATATATAAAT GAAGTTTGGGATTTGGAACTTTCTGTATCTCTTAGGAGGAACAAGTAAAAACCAAATGGTTACATTGTGCTGCTA GAAATAATGTCATTCTCAATTAAAAGGGTTACACCTGTAGCCACTTGACACTAACACCATCGAGGGCAATTAATC AGGAGAAAAGTAAATATAAAAACTTTGCTCTTAACGTCACACACTACAGGGTAATTATGTAATTCTCTAGCACTC **AATTAAGAAGCTTGTAGGTTAGCAAAATTTCAGTTTCTCTAGTTCAGCCAGTGTCTTGTCCTTAGTAATTATTTG** CTTTCCCTGCAGTTCAATTTCTCCTTGGAACTCTAACAGGACTAACTGGAAAAATACTTTGACCATAGCTCTAGT ACTTCCAAATAAATTCATATCTAGATTTTCAAACAAAGCCCCAAGATGAAGTCTAATTCTGAAAATATCTCACAA TCATTTTGGCCATTATAGTCACATCCGTTTGACTTTGGTTGTGACATCTTCCTTTCAGGATGATGAATTAGATG CAGTCTGTCTTTGAGTGAGACTGGTCACCATCAGAGGAGTTTTTTCTAAGTGACGTGACTAGAAGTTGAAATCTA

#### 209/2682 FIGURE 194C

ATGGAAGTGACCTGCTGTGACACTGTGCTCTCTTCTGTGGGCTTAATGGTTCCTTTGCTATGAAGTGGCAAATTA CATGTAGAGTGTCTCCTTTCCAGAGAACAGTTAATCAAGGCAAATCAGCAAGCCCCCAAAGTGCTGTAATT TAACATCATGATTACCACCTTCGAAGCTATATATTTTGCATACTTTAAAATCACCTAACTTGGACTGCTTGAATT ACATTGGCTTTTAGAACCGAAATTGTAACTATGTATTGTATTTCATGGGAGGTATATTTTATGAGCTTTTTGGCT TTCTTTTTTCCCACAGCAACTGCCAATGAAGGATGAATCCCCTTTTTAAAAAGTTGTTGTTGTTGTTTATTT TCCTGTGAATTGTCTTTACTGGCATCTTTGTTTTCCTCTTTGATGTTAGTAAATTTGGTGTAATACGTGGGGCT TCCATATTTCAAAGTGGAAGCTTTCTTCTCTGAAGTCGATATATGGTTTTGAATTACTAGAGCTTTGGTCAGTAT TTCCTTCCCTATATGTCACAGAGGGCACCACTGAGAACTGCGTGCATAGGACCTCAAAATACAAAATTAGCAGGG CCTCACAGTCAGCTTCCTCATGGCTAGTTTTTCCCCCTTATATTACAATTTTTGTTTTATAAGTCATTTTTTCCC GCCTTCCCCACCATTTCCAGGTGCCAACTGCTAAGCAGATATATTCCAAAAATGGTAACTGTCATGTGCACACTG TTGGTTATTTTTAATAAGCCTCTTCCTACTAGAACATTTTATTTTCCTTGTTCACCATACAATCATGTACTCTTT AACAGAAATTGCTTTTAAAAAATATCTGGAACTATCTTTAAAAAAACTTTATTAATAATCATGTATTTTACTGA TCACATTTTGAAATGCCTAAAAGACTTTATTGTTCTAATTATCCAGATGTACCTTTGTAAAATAGCTCTTTTATG AATTAGCTGATAAGGCTGTATGTTTCTGGAACAAAATATTGGTCATCTAAAAACTTTCTGTTTTCTGGGGTCTGG GAAAATAGAAAATAAGATTTCAAATATTAAATAAGCTTAAAGGAACCAAGCATGTGACTTTTACTTTGTATTCTG ACTGTCAGACATCTTCCTGCTTATTAGAGCATCCCTAGCAACAAGGCTAAACCTTCATGACAGTGCTGGCAGGTG GGCTTGCCCTAGCATGTGGGGCAGGTTTGTTGTTTTTTAATAGCTTTATTGAGATATTCACATATCATATAATT CATCCATTTAAAGTGTATAATCAGATGGGTTTTGGTATATTATTGATTTTTAATTGTGGTGAAATATATATAAA CAAAATTTGCTATTGTAACTATTTTTAAGTATAAAGTTCAGTGAGGTAGGCCAGCTTTTATGACGCACCTGAAGA TAACTTTGGTTTTAATCCTACCCTAAATGAAGCATATGCCTCTATTTTTCCTGTCCCCAGTGCTGGGCTTCTTCA  ${\tt CATACCAACATTTCTGTGCTTTTACCAACAGCATTTTAGCTCAGAAGGCTCGCTTACTTTGGGCATTTGCTGTAT_t}$ TTTGGTTTTGAAATACTTGTAATTTGACTTATTCTTGGGATAATATTTTAGTTTTCAGTCATTCAAGGGCACATT TGGCTGACGGAGCTAATAAGCGTAATAAAATGCTTAGTAGTTTATACCATCTTTTAGTTAAACATTTTAAAGATT AAGACTATTCAAATGTACTTTGCGGAAATTAACCTGTTTGTATGCCTGGCTTTGTTTACAAACATATATCTATAT CTATATATATAGATACAGATACAGATACATATCTGGTGGAACAAAGAAATACCTGTACCATTCCCACTTGCTCTT TGATAGCCACCTCCTAGGAATGGAGACAATAAAACTCTGTATTTGCATGTG

MSGTQSTITDRFPLKKPIRHGSILNRESPTDKKQKVERIASHDFDPTDSSSKKTKSSSEESRSEIYGLVQRCVII QKDDNGFGLTVSGDNPVFVQSVKEDGAAMRAGVQTGDRIIKVNGTLVTHSNHLEVVKLIKSGSYVALTVQGRPPG SPQIPLADSEVEPSVIGHMSPIMTSPHSPGASGNMERITSPVLMGEENNVVHNQKVEILRKMLQKEQERLQLLQE DYNRTPAQRLLKEIQEAKKHIPQLQEQLSKATGSAQDGAVVTPSRPLGDTLTVSEAETDPGDVLGRTDCSSGDAS RPSSDNADSPKSGPKERIYLEENPEKSETIQDTDTQSLVGSPSTRIAPHIIGAEDDDFGTEHEQINGQCSCFQSI ELLKSRPAHLAVFLHHVVSQFDPATLLCYLYSDLYKHTNSKETRRIFLEFHQFFLDRSAHLKVSVPDEMSADLEK RRPELIPEDLHRHYIQTMQERVHPEVQRHLEDFRQKRSMGLTLAESELTKLDAERDKDRLTLEKERTCAEQIVAK IEEVLMTAQAVEEDKSSTMQYVILMYMKHLGVKVKEPRNLEHKRGRIGFLPKIKQSMKKDKEGEEKGKRRGFPSI LGPPRRPSRHDNSAIGRAMELQKARHPKHLSTPSSVSPEPQDSAKLRQSGLANEGTDAGYLPANSMSSVASGASF  ${\tt SQEGGKENDTGSKQVGETSAPGDTLDGTPRTLNTVFDFPPPPLDQVQEEECEVERVTEHGTPKPFRKFDSVAFGE}$  ${\tt SQSEDEQFENDLETDPPNWQQLVSREVLLGLKPCEIKRQEVINELFYTERAHVRTLKVLDQVFYQRVSREGILSP}$ SELRKIFSNLEDILQLHIGLNEQMKAVRKRNETSVIDQIGEDLLTWFSGPGEEKLKHAAATFCSNQPFALEMIKS ROKKDSRFQTFVQDAESNPLCRRLQLKDIIPTQMQRLTKYPLLLDNIAKYTEWPTEREKVKKAADHCRQILNYVN QAVKEAENKQRLEDYQRRLDTSSLKLSEYPNVEELRNLDLTKRKMIHEGPLVWKVNRDKTIDLYTLLLEDILVLL QKQDDRLVLRCHSKILASTADSKHTFSPVIKLSTVLVRQVATDNKALFVISMSDNGAQIYELVAQTVSEKTVWQD LICRMAASVKEQSTKPIPLPQSTPGEGDNDEEDPSKLKEEQHGISVTGLQSPDRDLGLESTLISSKPQSHSLSTS GKSEVRDLFVAERQFAKEQHTDGTLKEVGEDYQIAIPDSHLPVSEERWALDALRNLGLLKQLLVQQLGLTEKSVQ EDWQHFPRYRTASQGPQTDSVIQNSENIKAYHSGEGHMPFRTGTGDIATCYSPRTSTESFAPRDSVGLAPQDSQA SNILVMDHMIMTPEMPTMEPEGGLDDSGEHFFDAREAHSDENPSEGDGAVNKEEKDVNLRISGNYLILDGYDPVQ ESSTDEEVASSLTLQPMTGIPAVESTHQQQHSPQNTHSDGAISPFTPEFLVQQRWGAMEYSCFEIQSPSSCADSQ SQIMEYIHKIEADLEHLKKVEESYTILCQRLAGSALTDKHSDKS

CTCCTCGCTTCTCCTCCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCCGCCGCCGCACTCGCCCT CTCCTCTCGCCCCCGGCAAACTTTCGGCCCCTCCCCGCCCCTCGCCCGTTATTCGTCGTGGCTCAAGCCCGGCC ACGCCGCCCAAGGGCTCCTCCCGACCTCCCGGCCTGCCGCTCCGGCCACTGCGGGATCCAGAAAC<u>ATC</u>TCGACC ACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCCCCCAGCTCGGGCTTCGCGCCGGGATTCCTC CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCCACCCCGCGCCCAGCCCCGGCAGCTGCTCGCCCAAGTTC CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCGGTCCGACCTCCTACGGCACCCTTAAGGAG  $\verb|CCGTCGGGGGGGGGGCGCACAGCCCTGCTCAACAAGGAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGC|\\$ TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCAT GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC GGCTTCTGCCCCTATGGGCCGCGCTGCCACTTCATCCACAACGCGGACGAGCGGCGGCCGCCGCCGTCGGGGGGGC GCCTCCGGGGACCTGCGTGCCTTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG TTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCCGGGCGGCCTCGAGTCGCCGCTG TCCTCCTGTTCCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCCTCCGCGGCGCCGCG GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCCCCGAGGACCTGCTGGCGCCCGGGGGCCCCGTGCGCGCCTGC TCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATC TTCAGCTTCCAGCTGCCGCGCCCGTGTCCGACTCGCCCGTGTTCGACGCGCCCCCCAGCCCCCGGACTCGCTG TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCCAGCCTCGAC CCTGGCCGCCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGAC<u>TGA</u>GGCAAGAGGGCGCCAGTGAGGAGG AAGGGAAGGCGGTTCAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGG GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGCCCCC AAACACTTAAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA ACCACCATTCCATCTCTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCTTCTCTTGGAAGAAGTTC TATATGTCTGGGGGTGAAAAAACCCTTGCATTCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA GTGGATGTTCAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

# 212/2682 FIGURE 197

MSTTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN STRYKTELCRPFEESGTCKYGEKCQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAP SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCS SSASSCSSASAASTPSGAPTCCASAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP LAIQTHNFAAVAAAAYYRSQQQQQQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSFQLPRRLSDSPVFDAPPSPP DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLFIFSRLSISDD

#### 213/2682 FIGURE 198A

CAGATTTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCCT GATGGATCTTGCCAGCCCCNTCCNTATTTTTTTTTTAAGTTATTTATTAAAACCACACACACCTTGCAAAGAAAAA GGGAAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCATCGCTCAGAGCCACAAACTGTATTTCTAAACAGCCCTT TCTCTGAGGTGGTCAGGGGCCCTGTGACAGCTTGGGACTTTCAGCACCTGGTTTGGGGTCATTTATCTGCTCAAC TGTCAGGACCCCCACCCCAAACCCCAGCCACCAACACCATCGTAGAAGGGAACACAACACAGAGGGTCTT TTTTCATTTTTTTAAAAAATCGGTTTGGTTGTGTTTTTGTTTTCCATGGGGGAGCTTTAAAACTCATTATTGCAA CACTAGTTCCATTTTTCGCCAGGGTTCCAATAACACGGCATCATAAAGGCAACGCAACCCACAGTTCTCAAGACA TCACAAAGATCTCCCTTTCGCGCCCGCGCCCGCTCCTCCCGCGCCGGGTCCCCTCAGCCACGGCCACAAAGTGCC CTTCTCTCCTCCTGAGTCTTGCACATAAGGAACGCGGGCTGGGGCTCTGTTCGTCTTTCTCCTCGCCCAAGGTAA GGACCTCGGGAATCTGAAGCCTGGCGTCCACTACGCTCAGGCCCGCAGTTCCCTTTTTACAGAGCTTGCACCATG GGAAAAAATAAAATAAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAACACAGAGTCACGCAGCGCCCAA AATACAAACACCGCAGCGGCCAGAAATCCCGCCACCTTTCTCGTTCTCCCAGGCTGTCCTGTCGAGGTTCCCTGA GTCCCCCGCACACTGAAAGGCATCGCAGGTGCAGTGCGCACCCCTTTCCCACCCCACCCCAAGAAGCCCTGTCCC GCCATCAGTCTCTCCTCGGGATGAGCAGGGAGAGCGCGGGAGGTTCCCGACTCCCTCGACTACAACCAAGAA AGAATAATTTTCAAAGTGTTCAACATCCCCGCCCCCAAGCTCCCCAAAACACAGGGGCAGGGAACACCAAAACAC TCGGCTCTCGTTAGGAAGATCACGGCTCTGAAAGGAAATAGTAGACACGATACTTCATCTCATCTGGATTTATGA AGGGAATCTAAAAGACCGAGGCCG<mark>ATG</mark>GAAGAGAGCCAGCGGGGGGGGGGGGGGCGAGCCTCCCTTTTTGCCTC CCGGAGTCACCCGTTATTCGTCGTGGCTCAAGCCCGGCCACGCCCCCAAGGGCTCCTCCCGACCTCCCGGCCT GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACCACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTG TGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAACAACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTG CACCCGCGCCCAGCCCGGCAGCTGCTCGCCCAAGTTCCCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCG CAGAAGGGGGGGGGGCGCCCAGATCAACTCCACGCGCTACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGC GGCACGTGCAAGTACGGCGAAAAGTGCCAGTTCGCGCATGGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCG AAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATCGGCTTCTGCCCCTATGGGCCGCGCTGCCACTTCATC CACAACGCGGACGAGCGGCGGCCGCCGCGCGGGGGGGGCGCCTCCGGGGACCTGCGTGCCTTTGGCACGCGCGAT GCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAGTTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCG GAGGACCTGCTGGCGCGGGGGCCCGTGCGCGGCCTGCTCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTC GGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATCCAGACCCACAACTTTGCCGCCGTGGCCGCCGCCGCCGCCGCC TACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGGCCTGGCGCCCCCCGCGCAGCCGCCGGCGCCCAGCGCG ACCCTCCCGCCGGGGCCGCCCCCCCCCCCCCCCCTCAGCTTCCAGCTGCCGCCGCCGCCTGTCCGACTCG CCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTGTCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGC TCCGGCAGCCTCAGCGGCTCTGAGTCTCCCAGCCTCGACCCTGGCCGCCCTGCCAATCTTCAGCCGCCTCTCC ATCTCCGACGAC<u>TGA</u>GGCAAGAGGGGCGCCAGTGAGGAGGGAAGGGGAAGGCGGTTCAGAGATGTTGGAGGACACCCC 

### 214/2682 FIGURE 198B

TTTATTTTTTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAGTCGAACTTTTTCTGTTGAACAAAATATTCACAA CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG CCCTCAGCCCATAGGTGTTTTTTTTTTTTTTAACAGAATTATATATGTCTGGGGGTGAAAAAACCCTTGCATTCCA AAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTAGTGGATGTTCAGTTTAGAACCATTTTGTCTGCTCC CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTTAGCTGTTTTGAGTTG GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTCACAGTAATATATGCCTTTTGTAACTTCACT TTCCTTGTTTACGTAAATTTTGAAAGATTGCATGATTTCTTGACAGAAATCGATCTTGATGCTGTGGAAGTAGTT TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACTTCAAAGAAAAAAATGACCA CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACTTTATAAACTAGCAAAAAAGTGTTTGC CACAGTGCCTTTGGAAGGGCCCGAACTTGCCTTAAATCTTCCTCAACCAAATAAGTATTTTATTAGTGCTTGAGA GAATCTGAATGTAGGATGGGTTCAACTGCACAAAAGGAAAAGATTTTTACCACTTTTTTTATATAGATATAAAGT GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTTAATTACAGAAAATTCCAAAACTTG GCTTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTCTGGACTACTTTGGACAGAAGTAGGTTTTT GAATGTAACAAGATAAGTCAACTTGAGTTGTAATATATTTTGGGGAATCAGCTCACTACAAATTGTGACTGTAAA CATTGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTTTGGGAAAAAAAGGTATTAACATGTAAGAGCT TTCTTTTTAAACAGGAATGTCTTAGCTTTCTAGCTTCCCAGCTAACCATGTCTGCCATTCCCCAGGTCTTGGCAT GGTGGGGGAGGACTTGGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTGCGTCCTCTCAGCCCGTATATATTTT ATAAGCAAGTTCTTCTAATGAAAGAAAGTAATTATTTGGACTGTCAAGGGCATTAGTT

# 215/2682 FIGURE 199

MEESQRGERAGSLPFCLPESPVIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTTLLSAFYDVDFLCKTEKSLA NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY GTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQINSTRYKTELCRPFEESGTCKYGEK CQFAHGFHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHFIHNADERRPAPSGGASGDLRAFGTRDALHLGFPR EPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSASASSCSSASAASTPSGAPTCCA SAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITPLAIQTHNFAAVAAAAYYRSQQQQ QQQGLAPPAQPPAPPSATLPAGAAAPPSPPFSFQLPRRLSDSPVFDAPPSPPDSLSDRDSYLSGSLSSGSLSGSE SPSLDPGRRLPIFSRLSISDD

GTCGTGGAAGCAGGACTGCGCCGCGTCTTCCTCAAGGTGGGGTTCGGGGGGCCACCGAATCGCTGTCACGCCGGC AGGTTGAGAACAAAACATGCACCTGGAGTTTCCCCGGAGCCCTCTGCGTGGTTGAGCTTCGGTGGAATTTCGGG GCTCTTGGCTGCCAGCCGCGCTTGCCTGGTAGCAACAGAAACCAGTCCTGCTCTCCTCCGTGGACATTTCATTAC CATCCAGAAGTGTCTCCCACTGAAGGCATCCGTGGTTGTTTTTAAGCCACAAAAAAGCCACACACCCAAGATCACCT TGCCCTGGTCCTGTTGAGGACGTGCAGAACTTCCTCTGACTGCACGATTCATGATGGGGCCGCAGGTG TCCATTTCATCTACACTAGAGAGGGCAGGCAGAGTGGTGAGGCTTTTGTTGAACTTGGATCAGAAGATGATGTAA AAATGGCCCTGAAAAAAGACAGGGAAAGCATGGGACACCGGTACATTGAGGTGTTCAAGTCCCACAGAACCGAGA TGGATTGGGTGTTGAAGCACAGTGGTCCCAACAGTGCCGACAGCGCCAACGATGGCTTCGTGCGGCTTCGAGGAC TCCCATTTGGATGCACAAAGGAAGAAATTGTTCAGTTCTTCTCAGGGTTGGAAATTGTGCCAAACGGGATCACAT TGCCTGTGGACCCCGAAGGCAAGATTACAGGGGAAGCGTTCGTGCAGTTTGCCTCGCAGGAGTTAGCTGAGAAGG CTCTAGGGAAACACAAGGAGAGGATAGGGCACAGGTACATTGAGGTGTTTAAGAGCAGCCAGGAGGAAGTTAGGT CATACTCAGATCCCCCTCTGAAGTTCATGTCCGTGCAGCGGCCAGGGCCCTATGACCGGCCCGGGACTGCCAGGA GGTACATTGGCATCGTGAAGCAGGCAGGCCTGGAAAGGATGAGGCCTGGTGCCTACAGCACAGGCTACGGGGGCT ACGAGGAGTACAGTGGCCTCAGTGATGGCTACGGCTTCACCACCGACCTGTTCGGGAGAGACCTCAGCTACTGTC TCTCCGGGATGTATGACCACAGATACGGCGACAGTGAGTTCACAGTGCAGAGCACCACAGGCCACTGTGTCCACA ATATTGAGATTGGCCCAGATGGAAGAGTGACGGGTGAAGCAGATGTTGAGTTTGCTACTCATGAAGAAGCTGTGG CAGCTATGTCCAAAGACAGGGCCAATATGCAGCACAGATATATAGAACTCTTCTTGAATTCAACAACAGGGGCCA GCAATGGGGCGTATAGCAGCCAGGTGATGCAAGGCATGGGGGTGTCTGCTGCCCAGGCCACTTACAGTGGCCTGG AGAGCCAGTCAGTGAGTGGCTGTTACGGGGCCGGCTACAGTGGGCAGAACAGCATGGGTGGCTATGACTTTT GTTAGGAACATTTGAGTTACTTCAATCATTTTCACAGGCAGCCAACAAGCAATTAAGAGCAGTTATAATAGAGGA AGCTGGGGGACCCATTTTGCACCATGAGTTTGTGAAAAATCTGGATTAAAAAATTACCTCTTCAGTGTTTTCTCA TGCAAAATTTTCTTCTAGCATGTGATAATGAGTAAACTAAAACTATTTTCAGCTTTTCTCAATTAACATTTTGGT AGTATACTTCAGAGTGATGTTATCTAAGTTTAAGTAGTTTAAGTATGTTAAATGTGGATCTTTTACACCACATCA CAGTGAACACACTGGGGAGACGTGCTTTTTTGGAAAACTCAAAGGTGCTAGCTCCCTGATTCAAAGAAATATTTC CTTTTTCACAATGACTGGCACAGATTACTCAGCAAAAGATAGCAAAACGGGTGGTTGAAGATAATTCATTTTAAT CGTAATGTATTTTAGTGTGAATTTAAAAATTTCATACATCAAATCTATGATCTCCCTTATATTCTTATGATGAGG CTAAATAAAAGTCTAATAAAAATGTTAAATATGTGAATGGTGGAAATGGTGACTAGCAGCACACATTCTGGGAAG CATCAAATAGACACACGGCCCCAGCCACCTGCAACTTATGTGCACTGTTGTAAACCATTCAGAATTTTCCTGCTA GGCCCTTGATGCTGGAGTCACATCTGTTGATAGCTGGAGAACTTTAGTTTCAAGTACTACATTGTGAAAGCAATT ATTTTGTTTCTCGTTTTTATAAAATGCTGACTTAAACTTTT

# 217/2682 FIGURE 201

MMLGPEGGEGFVVKLRGLPWSCSVEDVQNFLSDCTIHDGAAGVHFIYTREGRQSGEAFVELGSEDDVKMALKKDR ESMGHRYIEVFKSHRTEMDWVLKHSGPNSADSANDGFVRLRGLPFGCTKEEIVQFFSGLEIVPNGITLPVDPEGK ITGEAFVQFASQELAEKALGKHKERIGHRYIEVFKSSQEEVRSYSDPPLKFMSVQRPGPYDRPGTARRYIGIVKQ AGLERMRPGAYSTGYGGYEEYSGLSDGYGFTTDLFGRDLSYCLSGMYDHRYGDSEFTVQSTTGHCVHMRGLPYKA TENDIYNFFSPLNPVRVHIEIGPDGRVTGEADVEFATHEEAVAAMSKDRANMQHRYIELFLNSTTGASNGAYSSQ VMQGMGVSAAQATYSGLESQSVSGCYGAGYSGQNSMGGYD

GCGCCGGGCGCCCAATACGAACGCTACAGCTTCCGCAGCTTCCCACGGGACGAGCTGATGCCGCTCGAGTCGG CCTACCGGCACGCGCTGGACAAGTACAGCGGCGAGCACTGGGCCGAGAGCGTGGGCTACCTGGAGATCAGCCTGC GGCTGCACCGCTTGCTGCGCGACAGCGAGGCCTTCTGCCACCGCAACTGCAGCGCCGCGCGCAGCCCGAGCCCG GCAAGCAGGGCCTGCCAGCCTTCCGCCAGTCCCAGCCCAGCCGAGGTGCTGGCGGACTTCCAGCGCCGCGAGC CCTACAAGTTCCTGCAGTTCGCTTACTTCAAGGCAAATAATCTCCCCAAAGCCATCGCCGCTGCTCACACCTTTC ACATTAAAGACCTGGAAACCAAGTCATATGAAAGCCTGTTCATCCGAGCAGTGCGGGCATACAACGGTGAGAACT GGAGAACATCCATCACAGACATGGAGCTGGCCCTTCCCGACTTCTTCAAAGCCTTTTACGAGTGTCTCGCAGCCT GCGAGGGTTCCAGGGAGATCAAGGACTTCAAGGATTTCTACCTTTCCATAGCAGATCATTATGTAGAAGTTCTGG AATGCAAAATACAGTGTGAAGAGAACCTCACCCCAGTTATAGGAGGCTATCCGGTTGAGAAATTTGTGGCTACCA TGTATCATTACTTGCAGTTTGCCTATTATAAGTTGAACGACCTGAAGAATGCAGCCCCCTGTGCAGTCAGCTATC TGCTCTTTGATCAGAATGACAAGGTCATGCAGCAGAACCTGGTGTATTACCAGTACCACAGGGACACTTGGGGCC TCTCGGATGAGCACTTCCAGCCCAGACCTGAAGCAGTTCAGTTCTTTAATGTGACCACACTCCAGAAGGAGCTGT ATGACTTTGCTAAGGAAAATATAATGGATGATGATGAGGGAGAAGTTGTGGAATATGTGGATGACCTCTTGGAAC  ${\tt TGGAGGAGACCAGC} {\color{red}{\textbf{TAG}}} {\tt CCCACAGCAACCAAAGAGACTTCCTCTTGGCGTTCAGGAAACACAGATTCTTTGTCCT}$ TTTCCCAACAGCCCAGGCTGTTGATACCTCAGAGCCTTCTCTTTACTCTCCAAAGTGAAAGGGAAGCCCCCGTCT  $\tt CTCTAACTGCATGTCATCAGGGGTGAGCCTGCCTTTCCTATCTTCACACCTGCCACCTCATGTTCACACCTATCT$ TTCTCACCTTTTTTTTGAGATGGAGTCTCGCTCTCTTGCCCAGGCTGGAGTGCAATGGCACGTTCTCAGCTCACT GCAACCTCCGCCTCTTGGGTTCAAGCAATTCTGCTGCATCAGCCTCCCGAGTACCTGGGATTACAGGCATGTGCC ACCACGCCCGGCTAATTTTGTATTTTTAAGTAAGAGACGGGGTTTTGCCATGTTGGCCAGGCTGGTCTCGAACTC TTGACTTCAGATGATCCATCTGCCTTGGGCCTCCCACAGTGCTGGGATTACAGGCGTGAGCCACCATGCCCGGCC TCTTTCTCACCTTTACACCTGTCTTCTTATCCTCACATCTGTTTTCACACCTTCATCCCTGTCTTCCTCATGTTC ACACTTGTCTTCCCCATGTTCATAGCTGCCTTTCTTACCATTTTGGTTTGAAGGGCAGTCTTCTCTGGCTTGTTT TTTTGTTTTTCCCAGAAAATCAGTATTATTTTTTAAATAAGAAAAACATTCCTAGAAGATGATAATTGTGAAAAC CTCCTTTGGCTTATTTGCTTTTCCAGATTTTAGTCTCCTTTCTCCCCATCCGGGAAAGATGGTGGAAGACATAGG CTAAATTTCTCCAGCCTCACAATGGTCTTCACTTGGTCTGACTTGTACCAATTCTAGCACCCACTGAAAAACAAG TTGAGTAGAGAGTGTAGAGTGCAGAAATGTGGCTTTTGCCCCACTTTGCATCTCCAAAATTACAACGGTTGGCCG ATCCCATTTGAGGACAATGCTTAGTTATAAGTCTCCGAGTTGGAAAAGGAAGAAAGCCAGAGCTGTCTAGTTTCA 

# 219/2682 FIGURE 203

MEPGRRGAAALLALLCVACALRAGRAQYERYSFRSFPRDELMPLESAYRHALDKYSGEHWAESVGYLEISLRLHR LLRDSEAFCHRNCSAAPQPEPAAGLASYPELRLFGGLLRRAHCLKRCKQGLPAFRQSQPSREVLADFQRREPYKF LQFAYFKANNLPKAIAAAHTFLLKHPDDEMMKRNMAYYKSLPGAEDYIKDLETKSYESLFIRAVRAYNGENWRTS ITDMELALPDFFKAFYECLAACEGSREIKDFKDFYLSIADHYVEVLECKIQCEENLTPVIGGYPVEKFVATMYHY LQFAYYKLNDLKNAAPCAVSYLLFDQNDKVMQQNLVYYQYHRDTWGLSDEHFQPRPEAVQFFNVTTLQKELYDFA KENIMDDDEGEVVEYVDDLLELEETS

CTCGTCGCCGCCGCCATTTTAGCTGTTGGTTCCGGCCGCACCGTGTGGGCTGTAGTAGCGGGAGGGGTGGGGGTC  ${\tt AGAGTGCGAGG}$ CCGATGGGAAGGATCGAGATCGGGATCGTGAAGATCGGTCTAAAGATCGAGACCGAGAACGTGATAGAG GAGATAGAGAGCGAGAGAGGGAGAAGAAAGGAGAGGAGGTTGCGAGCTTCAACAAATGCTATGCTTATCAGTG CTGCTCATTCAACGCATGCCGGACATGCAGGTCACACGTCACTTCCACAGTGCATTAATCCGTTCACCAACTTAC CCCATACTCCTCGATACTATGATATTCTAAAGAAACGTCTTCAGCTCCCTGTTTGGGAATACAAGGATAGGTTTA ACCGGTGTGTGGAGTACATGCGATCATTACCAGGACCCAAGAGAGGGGTTGCCTGTACCCAACCCAGGAGAGTGG GATTTGAAGACTGCAGTAGTGCAAAAACATTTTTTATGTATATGACTGATGGGATGTTACTTCGTGAAGCTATGA ATGATCCCCTCCTGGAGCGTTATGGTGTAATAATTCTTGATGAGGGCTCATGAGAGACACTGGCTACAGATATTC TAATGGGTGTTCTGAAGGAAGTTGTAAGACAGAGATCAGATTTAAAGGTTATAGTTATGAGCGCTACTCTAGATG CAGGAAAATTCCAGATTTACTTTGATAACTGTCCTCCTAACTATTCCTGGGCGTACACATCCTGTTGAGATCT TCTATACTCCAGAACCAGAGAGAGATTATCTTGAAGCAGCAATTCGAACAGTTATCCAGATTCATATGTGTGAAG AGGAAGAGGGAGATCTTCTTTCTTTAACTGGTCAAGAGGAAATTGATGAAGCCTGTAAGAGAATAAAGCGTG AAGTTGATGATTTGGGCCCTGAAGTTGGTGACATTAAAATCATTCCATTGTATTCTACACTTCCACCTCAGCAGC AGCAACGCATTTTTGAGCCTCCACCTCCCAAAAAACAGAATGGAGCAATTGGAAGAAAGGTAGTTGTCCAACTA ACAATCCTCGAATCAGAGTTGAGTCCCTTTTGGTGACAGCTATTAGTAAAGCTTCAGCTCAGCAAAGGGCTGGTC GAGCTGGACGTACCAGACCTGGAAAATGCTTCAGACTTTACACAGAGAAAGCTTATAAAACAGAAATGCAGGATA ACACCTATCCTGAGATTTTGCGTTCTAATTTAGGATCAGTTGTGTTACAATTGAAGAAACTTGGTATTGATGACT TGGTACATTTTGATTTTATGGATCCACCAGCTCCTGAAACTCTGATGAGAGCCCTGGAACTTTTGAATTACCTGG CTGCTTTAAATGATGATGGAGATCTGACTGAATTGGGATCCATGATGGCAGAGTTTCCTCTAGATCCACAGCTCG CACAGTGTTTTGTTCGCCCCACGGAGGCCAAGAAAGCCGCAGATGAGGCCAAGATGAGATTTGCCCACATAGATG GAGATCATCTGACACTGCTGAACGTCTACCATGCTTTTAAACAAAATCATGAATCGGTTCAGTGGTGTTATGACA  ${\tt ACTTCATTAACTACAGGTCCCTGATGTCCGCGGACAATGTACGCCAGCAGCTATCTCGAATTATGGACAGATTTA}$ ATTTGCCTCGTCGAAGTACTGACTTTACAAGCAGGGACTATTATATTAATATAAGAAAAGCTTTGGTTACTGGGT ATTTTATGCAGGTGGCACATTTAGAACGAACAGGGCATTACTTAACTGTGAAAGATAACCAGGTGGTTCAGTTGC ATCCCTCTACTGTTCTTGACCACAAACCTGAATGGGTGCTTTATAATGAGTTTGTTCTAACAACAAAGAATTACA TCCGGACATGTACAGACATCAAGCCAGAATGGTTGGTGAAAATTGCCCCTCAATATTATGACATGAGCAATTTCC CACAGTGTGAAGCAAAGAGACAGTTGGACCGCATCATTGCCCAAACTTCAATCCAAGGAATATTCACAGTACTGA ATTCAGTGCTTAGAACTGAAGTTATTGAGAGGACAGCTTTAAAAGATGAA<u>TGA</u>ACTCAAAAGTTCGAGTTGTGCT CTTCACGTTGGTTCGATAATGGCCTTTATTTGAAAGCTTTTTAATTTTTCTTTACAGTAAATATTCCATTCTGAT TTCATAAATTAAACATTTATGCCTCCCTTTTGTGTTGACACTGTAGCTCATACTGGAAAAGTCGATCAATGTTTT GCAGTTTATTGAAAGTAGTTCTATATATAACAATGTTATAAGCATTTCTTTAGAAATGGTTGAAAATGCTTCTAA AATGTGATTATCGACCATGGTATGCATGATCGTTGTAATTGTTGACATTCCTTTTAGAAGTTGTGAAATGTTACA ACTTGTGCTTATGTAGACACAATTTTTTGTTTCAGTACCAGAGGCACTGACTTCAATAAAGTTTATTATACGGA ΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑΑ

# FIGURE 205

MSKRHRLDLGEDYPSGKKRAGTDGKDRDRDRDREDRSKDRDRERDRGDREREREKEKEKELRASTNAMLISAGLP
PLKASHSAHSTHSAHSTHSTHSAHSTHAGHAGHTSLPQCINPFTNLPHTPRYYDILKKRLQLPVWEYKDRFTDIL
GRHQSFVLVGETGSGKTTQIPHRCVEYMRSLPGPKRGVACTQPRRVAAMSVAQRVADEMDVMLGQEVGYSIRFED
CSSAKTFFMYMTDGMLLREAMNDPLLERYGVIILDEAHERTLATDILMGVLKEVVRQRSDLKVIVMSATLDAGKF
QIYFDNCPLLTIPGRTHPVEIFYTPEPERDYLEAAIRTVIQIHMCEEEEGDLLLFLTGQEEIDEACKRIKREVDD
LGPEVGDIKIIPLYSTLPPQQQQRIFEPPPPKKQNGAIGRKVVVSTNIAETSLTIDGVVFVIDPGFAKQKVYNPR
IRVESLLVTAISKASAQQRAGRAGRTRPGKCFRLYTEKAYKTEMQDNTYPEILRSNLGSVVLQLKKLGIDDLVHF
DFMDPPAPETLMRALELLNYLAALNDDGDLTELGSMMAEFPLDPQLAKMVIASCDYNCSNEVLSITAMLSVPQCF
VRPTEAKKAADEAKMRFAHIDGDHLTLLNVYHAFKQNHESVQWCYDNFINYRSLMSADNVRQQLSRIMDRFNLPR
RSTDFTSRDYYINIRKALVTGYFMQVAHLERTGHYLTVKDNQVVQLHPSTVLDHKPEWVLYNEFVLTTKNYIRTC
TDIKPEWLVKIAPQYYDMSNFPQCEAKRQLDRIIAQTSIQGIFTVLNSVLRTEVIERTALKDE

GAATTCGCGGCCGCTGGTTTGCAGCTGCTCCGTCATCGTGCGGCCCGACGCTATCTCGCGCTCGTGTGCAGGCCC GGCTCGGCTCCTGGTCCCCGGTGCGAGGGTTAACGCGAGGCCCCGGCCTCGGTCCCCGGACTAGGCCGTGACCCC ACAAGAACCCCCACCGCCGCCCCCCAGGATGTGGAGATGAAAGAGGGGCAGCGACGGGTGGCGGTCAAC GGGGGAGGCAGACGCCAAGACGGCGGCGGCAGCGGTTGAGCACTCCCAGCGAGAGCTGGACACAGTCACCTTGGA GGACATCAAGGAGCACGTGAAACAGCTAGAGAAAGCGGTTTCAGGCAAGGAGCCGAGATTCGTGCTGCGGGCCCT GCGGATGCTGCCTTCCACATCACGCCGCCTCAACCACTATGTTCTGTATAAGGCTGTGCAGGGCTTCTTCACTTC AAATAATGCCACTCGAGACTTTTTGCTCCCCTTCCTGGAAGAGCCCATGGACACAGAGGCTGATTTACAGTTCCG CTTCATGATGAACAGCAAGCGCTACAAAGAGGCACAGAAGATCTCTGATGATGCAGAAGATCAGTACTCA GAACCGCCGGGCCCTAGACCTTGTAGCCGCAAAGTGTTACTATTATCACGCCCGGGTCTATGAGTTCCTGGACAA GCTGGATGTGGTGCGCAGCTTCTTGCATGCTCGGCTCCGGACAGCTACGCTTCGGCATGACGCAGACGGGCAGGC CACCCTGTTGAACCTCCTGCTGCGGAATTACCTACACTACAGCTTGTACGACCAGGCTGAGAAGCTGGTGTCCAA GTCTGTGTTCCCAGAGCAGGCCAACAACAATGAGTGGGCCAGGTACCTCTACTACACAGGGCGAATCAAAGCCAT CTTCAAACAGACGGTGCACAAGCTTCTCATCGTGGTGGAGCTGTTGCTGGGGGAGATCCCTGACCGGCTGCAGTT CCGCCAGCCCTCCCTCAAGCGCTCACTCATGCCCTATTTCCTTCTGACTCAAGCTGTCAGGACAGGAAACCTAGC CAAGTTCAACCAGGTCCTGGATCAGTTTGGGGAGAAGTTTCAAGCAGATGGGACCTACACCCTAATTATCCGGCT GCGGCACAACGTGATTAAGACAGGTGTACGCATGATCAGCCTCTCCTATTCCCGAATCTCCTTGGCTGACATCGC CCAGAAGCTGCAGTTGGATAGCCCCGAAGATGCAGAGTTCATTGTTGCCAAGGCCATCCGGGATGGTGTCATTGA CAAATCGTACAACAAGGACTTGGAGTCTGCAGAGGAACGGCGTGAGCGAGAACAGCAGGACTTGGAGTTTGCCAA GGAGATGGCAGAAGATGATGATGACAGCTTCCCT<u>TGA</u>GCTGGGGGGGCTGGGGAGGGGTAGGGGGAATGGGGACAG GTGCAGGGGGTGGGGGGGCCAGCCAGCCTGACCTCCCCCAGGGCTCCTCCCCAGCCGGTGACTTACTG TACAGCAGGCAGGAGGGTGGGCAGCCACCTCCCCGGGCAGGGTCCTGGCCAGCAGTGTGGGAGCAGGAGGGGAA GGATAGTTCTGTGTACTCCTTTAGGGAGTGGGGGACTAGAACTGGGATGTCTTGGCTTGTATGTTTTTTGAAGCT 

# 223/2682 FIGURE 207

MKQEGSARRGADKAKPPPGGGEQEPPPPPAPQDVEMKEEAATGGGSTGEADGKTAAAAVEHSQRELDTVTLEDI KEHVKQLEKAVSGKEPRFVLRALRMLPSTSRRLNHYVLYKAVQGFFTSNNATRDFLLPFLEEPMDTEADLQFRPR TGKAASTPLLPEVEAYLQLLVVIFMMNSKRYKEAQKISDDLMQKISTQNRRALDLVAAKCYYYHARVYEFLDKLD VVRSFLHARLRTATLRHDADGQATLLNLLLRNYLHYSLYDQAEKLVSKSVFPEQANNNEWARYLYYTGRIKAIQL EYSEARRTMTNALRKAPQHTAVGFKQTVHKLLIVVELLLGEIPDRLQFRQPSLKRSLMPYFLLTQAVRTGNLAKF NQVLDQFGEKFQADGTYTLIIRLRHNVIKTGVRMISLSYSRISLADIAQKLQLDSPEDAEFIVAKAIRDGVIEAS INHEKGYVQSKEMIDIYSTREPQLAFHQRISFCLDIHNMSVKAMRFPPKSYNKDLESAEERREREQQDLEFAKEM AEDDDDSFP

### 224/2682 FIGURE 208A

ACTTAGACGCGGAGGCCCCAGCAGTACTCTCGGGGCCCCCGGGCTCCTTCTTCGGATTCTCAGTGGAGTTTTACC GTGGTGCTGTCTTGTCCTTGGGGTGCCAGCCCCACACAGTGCACCCCCATTGAATTTGACAGCAAAGGCT GGGCAACAGTTCGAGCCCATGGCTCCTCCATCTTGGCATGCGCTCCACTGTACAGCTGGCGCACAGAGAAGGAGC CACTGAGCGACCCCGTGGGCACCTGCTACCTCTCCACAGATAACTTCACCCGAATTCTGGAGTATGCACCCTGCC GCTCAGATTTCAGCTGGGCAGCAGGACAGGGTTACTGCCAAGGAGGCTTCAGTGCCGAGTTCACCAAGACTGGCC GTGTGGTTTTAGGTGGACCAGGAAGCTATTTCTGGCAAGGCCAGATCCTGTCTGCCACTCAGGAGCAGATTGCAG AATCTTATTACCCCGAGTACCTGATCAACCTGGTTCAGGGGCAGCTGCAGACTCGCCAGGCCAGTTCCATCTATG ATGACAGCTACCTAGGATACTCTGTGGCTGTTGGTGAATTCAGTGGTGATGACACAGAAGACTTTGTTGCTGGTG TGCCCAAAGGGAACCTCACTTACGGCTATGTCACCATCCTTAATGGCTCAGACATTCGATCCCTCTACAACTTCT CAGGGGAACAGATGGCCTCCTACTTTGGCTATGCAGTGGCCGCCACAGACGTCAATGGGGACGGCTGGATGACT TGCTGGTGGGGGCACCCCTGCTCATGGATCGGACCCCTGACGGGCGGCCTCAGGAGGTGGGCAGGGTCTACGTCT ACCTGCAGCACCCAGCCGGCATAGAGCCCACGCCCACCCTTACCCTCACTGGCCATGATGAGTTTGGCCGATTTG GCAGCTCCTTGACCCCCTGGGGGACCTGGACCAGGATGGCTACAATGATGTGGCCATCGGGGCTCCCTTTGGTG GGGAGACCCAGCAGGGAGTAGTGTTTGTATTTCCTGGGGGCCCAGGAGGGCTGGGCTCTAAGCCTTCCCAGGTTC TGCAGCCCTGTGGGCAGCCAGCCACCCCAGACTTCTTTGGCTCTGCCCTTCGAGGAGGCCGAGACCTGGATG GCAATGGATATCCTGATCTGATTGTGGGGTCCTTTGGTGTGGACAAGGCTGTGGTATACAGGGGCCCCCCATCG TGTCCGCTAGTGCCTCCCCCACCATCTTCCCCGCCATGTTCAACCCAGAGGAGCGGAGCTGCAGCTTAGAGGGGA ACCCTGTGGCCTGCATCAACCTTAGCTTCTGCCTCAATGCTTCTGGAAAACACGTTGCTGACTCCATTGGTTTCA CAACCCTGACCCAGACCCTGCTCATCCAGAATGGGGCTCGAGAGGATTGCAGAGAGATGAAGATCTACCTCAGGA ACGAGTCAGAATTTCGAGACAAACTCTCGCCGATTCACATCGCTCTCAACTTCTCCTTGGACCCCCAAGCCCCAG TGGACAGCCACGGCCTCAGGCCAGCCCTACATTATCAGAGCAAGAGCCGGATAGAGGACAAGGCTCAGATCTTGC TGGACTGTGGAGAAGACAACATCTGTGTGCCTGACCTGCAGCTGGAAGTGTTTGGGGAGCAGAACCATGTGTACC TGGGTGACAAGAATGCCCTGAACCTCACTTTCCATGCCCAGAATGTGGGTGAGGGTGGCGCCTATGAGGCTGAGC TTCGGGTCACCGCCCCCCAGAGGCTGAGTACTCAGGACTCGTCAGACACCCAGGGAACTTCTCCAGCCTGAGCT GTGACTACTTTGCCGTGAACCAGAGCCGCCTGCTGGTGTGTGACCTGGGCAACCCCATGAAGGCAGGAGCCAGTC TGTGGGGTGGCCTTCGGTTTACAGTCCCTCATCTCCGGGACACTAAGAAAACCATCCAGTTTGACTTCCAGATCC TCAGCAAGAATCTCAACAACTCGCAAAGCGACGTGGTTTCCTTTCGGCTCTCCGTGGAGGCTCAGGCCCAGGTCA CCCTGAACGGTGTCTCCAAGCCTGAGGCAGTGCTATTCCCAGTAAGCGACTGGCATCCCCGAGACCAGCCTCAGA AGGAGGAGGACCTGGGACCTGCTGCCACCATGTCTATGAGCTCATCAACCAAGGCCCCAGCTCCATTAGCCAGG GTGTGCTGGAACTCAGCTGTCCCCAGGCTCTGGAAGGTCAGCAGCTCCTATATGTGACCAGAGTTACGGGACTCA ACTGCACCACCAATCACCCCATTAACCCAAAGGGCCTGGAGTTGGATCCCGAGGGTTCCCTGCACCACCAGCAAA AACGGGAAGCTCCAAGCCGCAGCTCTGCTTCCTCGGGACCTCAGATCCTGAAATGCCCGGAGGCTGAGTGTTTCA GGCTGCGCTGTGAGCTCGGGCCCCTGCACCAACAAGAGAGCCAAAGTCTGCAGTTGCATTTCCGAGTCTGGGCCA AGACTTTCTTGCAGCGGGAGCACCAGCCATTTAGCCTGCAGTGTGAGGCTGTACAAAGCCCTGAAGATGCCCT ACCGAATCCTGCCTCGGCAGCTGCCCCAAAAAGAGCGTCAGGTGGCCACAGCTGTGCAATGGACCAAGGCAGAAG GCAGCTATGGCGTCCCACTGTGGATCATCCTAGCCATCCTGTTTGGCCTCCTGCTCCTAGGTCTACTCATCT  $\tt CTCCAGCCACCTCTGATGCC\underline{TGA}_{GTCCTCCCAATTTCAGACTCCCATTCCTGAAGAACCAGTCCCCCACCCTCA$ TTCTACTGAAAAGGAGGGGTCTGGGTACTTCTTGAAGGTGCTGACGGCCAGGGAGAAGCTCCTCTCCCCAGCCCA CTTGTTTACACATACCCTCTTCATGGATGGGGGAACTCAGATCCAGGGACAGAGGCCCAGCCTCCCTGAAGCCTT TGCATTTTGGAGAGTTTCCTGAAACAACTGGAAAGATAACTAGGAAATCCATTCACAGTTCTTTGGGCCAGACAT GCCACAAGGACTTCCTGTCCAGCTCCAACCTGCAAAGATCTGTCCTCAGCCTTGCCAGAGATCCAAAAGAAGCCC

### 225/2682 FIGURE 208B

### 226/2682 FIGURE 209

MGSRTPESPLHAVQLRWGPRRRPPLVPLLLLLVPPPPRVGGFNLDAEAPAVLSGPPGSFFGFSVEFYRPGTDGVS
VLVGAPKANTSQPGVLQGGAVYLCPWGASPTQCTPIEFDSKGSRLLESSLSSSEGEEPVEYKSLQWFGATVRAHG
SSILACAPLYSWRTEKEPLSDPVGTCYLSTDNFTRILEYAPCRSDFSWAAGQGYCQGGFSAEFTKTGRVVLGGPG
SYFWQGQILSATQEQIAESYYPEYLINLVQGQLQTRQASSIYDDSYLGYSVAVGEFSGDDTEDFVAGVPKGNLTY
GYVTILNGSDIRSLYNFSGEQMASYFGYAVAATDVNGDGLDDLLVGAPLLMDRTPDGRPQEVGRVYVYLQHPAGI
EPTPTLTLTGHDEFGRFGSSLTPLGDLDQDGYNDVAIGAPFGGETQQGVVFVFPGGPGGLGSKPSQVLQPLWAAS
HTPDFFGSALRGGRDLDGNGYPDLIVGSFGVDKAVVYRGRPIVSASASLTIFPAMFNPEERSCSLEGNPVACINL
SFCLNASGKHVADSIGFTVELQLDWQKQKGGVRRALFLASRQATLTQTLLIQNGAREDCREMKIYLRNESEFRDK
LSPIHIALNFSLDPQAPVDSHGLRPALHYQSKSRIEDKAQILLDCGEDNICVPDLQLEVFGEQNHVYLGDKNALN
LTFHAQNVGEGGAYEAELRVTAPPEAEYSGLVRHPGNFSSLSCDYFAVNQSRLLVCDLGNPMKAGASLWGGLRFT
VPHLRDTKKTIQFDFQILSKNLNNSQSDVVSFRLSVEAQAQVTLNGVSKPEAVLFPVSDWHPRDQPQKEEDLGPA
VHHVYELINQGPSSISQGVLELSCPQALEGQQLLYVTRVTGLNCTTNHPINPKGLELDPEGSLHHQQKREAPSRS
SASSGPQILKCPEAECFRLRCELGPLHQQESQSLQLHFRVWAKTFLQREHQPFSLQCEAVYKALKMPYRILPRQL
PQKERQVATAVQWTKAEGSYGVPLWIIILAILFGLLLLGLLIYILYKLGFFKRSLPYGTAMEKAQLKPPATSDA

 ${\tt AGTCCGCGCCGCCGCCGCCCAGGCCATCGCCACCCTCCGCAGCC} {\tt ATG} {\tt TCCACCAGGTCCGTGTCCTCGTCCT}$ CCCGCACCTACAGCCTGGGCAGCGCTGCGCCCCAGCACCAGCCGCAGCCTCTACGCCTCGTCCCCGGGCGGCG TGTATGCCACGCGCTCCTCTGCCGTGCGCCTGCGGAGCAGCGTGCCCGGGGTGCGGCTCCTGCAGGACTCGGTGG TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCCTGGAGCAGCAGAATAAGATCCTGCTGGCCGAGC TCGAGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC AGGTGGACCAGCTAACCAACGACAAAGCCCGCGTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGGAAGCCGAAAACACCCTGCAATCTTTCAGACAGGATG TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAAGTGGAATCTTTGCAAGAAGAGATTGCCTTTTTGA AGAAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTCAGGAACAGCATGTCCAAATCGATGTGGATG AGGAGGCAGAAGAATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACCGGAACAATGACGCCCTGC GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGGATGCCCTTAAAG GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAG ACACTATTGGCCGCCTGCAGGATGAGATTCAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCA GGATTTCTCTGCCTCTTCCAAACTTTTCCTCCCTGAACCTGAGGGAAACTAATCTGGATTCACTCCCTCTGGTTG ATACCCACTCAAAAAGGACATTCCTGATTAAGACGGTTGAAACTAGAGATGGACAGGTTATCAACGAAACTTCTC AGCATCACGATGACCTTGAA<u>TAA</u>AAATTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA ATAGGAATAAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAAGTTTACAACATAATCTAGTT CAAGTATCCAACCAACTTGGTTCTGCTTCAATAAATCTTTGGAAAACTCCA

# 228/2682 FIGURE 211

MSTRSVSSSSYRRMFGGPGTASRPSSSRSYVTTSTRTYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVPGVRLLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLEQQNKILLAELEQLKGQGKSRLGDLYEEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLQREEAENTLQSFRQDVDNASLARLDLERKVESLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRQQYESVAAKNLQEAEEWYKSKFADLSEAANRNNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEEMARHLREYQDLLNVKMALDIEIATYRKLLEGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTFLIKTVETRDGQVINETSQHHDDLE

### 229/2682 FIGURE 212A

CAGTTTGGAGCTCAGTCTTCCACCAAAGGCCGTTCAGTTCTCCTGGGCTCCAGCCTCCTGCAAGGACTGCAAGAG GGAAAAGTATGCATCCTATTCAAACCTAATTGAATCGAGGAGCCCAGGGACACACGCCTTCAGGTTTGCTCAGGG  $\tt GTTCATATTTGGTGCTTAGACAAATTCAAA{\color{red} ATG} AGGAAACATCGGCACTTGCCCTTAGTGGCCGTCTTTTGCCTC$ TTTCTCTCAGGCTTTCCTACAACTCATGCCCAGCAGCAGCAGCAGCAGTGTCAAAAATGGTGCGGCTGCTGATATA ATATTTCTAGTGGATTCCTCTTGGACCATTGGAGAGGAACATTTCCAACTTGTTCGAGAGTTTCTATATGATGTT GTAAAATCCTTAGCTGTGGGAGAAAATGATTTCCATTTTGCTCTGGTCCAGTTCAACGGAAACCCACATACCGAG TTCCTGTTAAATACGTATCGTACTAAACAAGAAGTCCTTTCTCATATTTCCAACATGTCTTATATTGGGGGAACC AATCAGACTGGAAAAGGATTAGAATACATAATGCAAAGCCACCTCACCAAGGCTGCTGGAAGCCGGGCCGGTGAC GGAGTCCCTCAGGTTATCGTAGTGTTAACTGATGGACACTCGAAGGATGGCCTTGCTCTGCCCTCAGCGGAACTT AAGTCTGCTGATGTTAACGTGTTTGCAATTGGAGTTGAGGATGCAGATGAAGGAGCGTTAAAAAGAAATAGCAAGT GAACCGCTCAATATGCATATGTTCAACCTAGAGAATTTTACCTCACTTCATGACATAGTAGGAAACTTAGTGTCC TGTGTGCATTCATCCGTGAGTCCAGAAAGGGCTGGGGACACGGAAACCCTTAAAGACATCACAGCACAAGACTCT GCTGACATTATTTTCCTTATTGATGGATCAAACAACACCGGAAGTGTCAATTTCGCAGTCATTCTCGACTTCCTT GTAAATCTCCTTGAGAAACTCCCAATTGGAACTCAGCAGATCCGAGTGGGGGTGGTCCAGTTTAGCGATGAGCCC AGAACCATGTTTTCCTTGGACACCTACTCCACCAAGGCCCAGGTTCTGGGTGCAGTGAAAGCCCTCGGGTTTGCT GGTGGGGAGTTGGCCAATATCGGCCTCGCCCTTGATTTCGTGGTGGAGAACCACTTCACCCGGGCAGGGGGCAGC CGCGTGGAGGAAGGGGTTCCCCAGGTGCTGGTCCTCATAAGTGCCGGGCCTTCTAGTGACGAGATTCGCTACGGG GTGGTAGCACTGAAGCAGGCTAGCGTGTTCTCATTCGGCCTTGGAGCCCAGGCCGCCTCCAGGGCAGAGCTTCAG CACATAGCTACCGATGACAACTTGGTGTTTACTGTCCCGGAATTCCGTAGCTTTGGGGACCTCCAGGAGAAATTA CTGCCGTACATTGTTGGCGTGGCCCAAAGGCACATTGTCTTGAAACCGCCAACCATTGTCACACAAGTCATTGAA GTCAACAAGAGAGACATAGTCTTCCTGGTGGATGGCTCATCTGCACTGGGACTGGCCAACTTCAATGCCATCCGA GACTTCATTGCTAAAGTCATCCAGAGGCTGGAAATCGGACAGGATCTTATCCAGGTGGCAGTGGCCCAGTATGCA GACACTGTGAGGCCTGAATTTTATTTCAATACCCATCCAACAAAAAGGGAAGTCATAACCGCTGTGCGGAAAATG AAGCCCCTGGACGGCTCGGCCCTGTACACGGGCTCTGCTCTAGACTTTGTTCGTAACAACCTATTCACGAGTTCA GCCGGCTACCGGGCTGCCGAGGGGATTCCTAAGCTTTTGGTGCTGATCACAGGTGGTAAGTCCCTAGATGAAATC AGCCAGCCTGCCCAGGAGCTGAAGAGAAGCAGCATAATGGCCTTTGCCATTGGGAACAAGGGTGCCGATCAGGCT GAGCTGGAAGAGCCCTTCGACTCCTCCCTGGTGTTCATCCCAGCTGAGTTCCGAGCCGCCCCATTGCAAGGC ATCTTTCTTTTGGATGGATCAGCCAACGTTGGAAAAACCAATTTCCCTTATGTGCGCGACTTTGTAATGAACCTA GTTAACAGCCTTGATATTGGAAATGACAATATTCGTGTTGGTTTAGTGCAATTTAGTGACACTCCTGTAACGGAG TTCTCTTTAAACACATACCAGACCAAGTCAGATATCCTTGGTCATCTGAGGCAGCTGCAGCTCCAGGGAGGTTCG GGCCTGAACACAGGCTCAGCCCTAAGCTATGTCTATGCCAACCACTTCACGGAAGCTGGCGGCAGCAGGATCCGT GAACACGTGCCGCAGCTCCTGCTTCTGCTCACAGCTGGGCAGTCTGAGGACTCCTATTTGCAAGCTGCCAACGCC TTGACACGCGCGGCATCCTGACTTTTTGTGTGGGAGCTAGCCAGGCGAATAAGGCAGAGCTTGAGCAGATTGCT TTTAACCCAAGCCTGGTGTATCTCATGGATGATTTCAGCTCCCTGCCAGCTTTGCCTCAGCAGCTGATTCAGCCC CTAACCACATATGTTAGTGGAGGTGTGGAGGAAGTACCACTCGCTCAGCCAGAGAGCAAGCGAGACATTCTGTTC CTCTTTGACGGCTCAGCCAATCTTGTGGGCCAGTTCCCTGTTGTCCGTGACTTTCTCTACAAGATTATCGATGAG CTCAATGTGAAGCCAGAGGGGACCCGAATTGCGGTGGCTCAGTACAGCGATGATGTCAAGGTGGAGTCCCGTTTT GATGAGCACCAGAGTAAGCCTGAGATCCTGAATCTTGTGAAGAGAATGAAGATCAAGACGGGCAAAGCCCTCAAC CTGGGCTACGCGCTGGACTATGCACAGAGGTACATTTTTGTGAAGTCTGCTGGCAGCCGGATCGAGGATGGAGTG CTTCAGTTCCTGGTGCTGGTCGCAGGAAGGTCATCTGACCGTGTGGATGGGCCAGCAAGTAACCTGAAGCAG AGTGGGGTTGTGCCTTCATCTTCCAAGCCAAGAACGCAGACCCTGCTGAGTTAGAGCAGATCGTGCTGTCTCCA GCGTTTATCCTGGCTGCAGAGTCGCTTCCCAAGATTGGAGATCTTCATCCACAGATAGTGAATCTCTTAAAATCA GTGCACAACGGAGCACCAGCACCAGTTTCAGGTGAAAAGGACGTGGTGTTTCTGCTTGATGGCTCTGAGGGCGTC AGGAGCGGCTTCCCTCTGTTGAAAGAGTTTGTCCAGAGAGTGGTGGAAAGCCTGGATGTGGGCCAGGACCGGGTC CGCGTGGCCGTGGTGCAGTACAGCGACCGGACCAGGCCCGAGTTCTACCTGAATTCATACATGAACAAGCAGGAC GTCGTCAACGCTGTCCGCCAGCTGACCCTGCTGGGAGGGCCGACCCCCAACACCGGGGCCGCCCTGGAGTTTGTC

### 230/2682 FIGURE 212B

CTGAGGAACATCCTGGTCAGCTCTGCGGGAAGCAGGATAACAGAAGGTGTGCCCCAGCTGCTGATCGTCCTCACG GCCGACAGGTCTGGGGATGATGTGCGGAACCCCTCCGTGGTCGTGAAGAGGGGTGGGGCTGTGCCCATTGGCATT GGCATCGGGAACGCTGACATCACAGAGATGCAGACCATCTCCTTCATCCCGGACTTTGCCGTGGCCATTCCCACC TTTCGCCAGCTGGGGACCGTCCAACAGGTCATCTCTGAGAGGGTGACCCAGCTCACCCGCGAGGAGCTGAGCAGG CTGCAGCCGGTGTTGCAGCCTCTACCGAGCCCAGGTGTTGGTGGCAAGAGGGACGTGGTCTTTCTCATCGATGGG TCCCAAAGTGCCGGGCCTGAGTTCCAGTACGTTCGCACCCTCATAGAGAGGCTGGTTGACTACCTGGACGTGGGC TTTGACACCACCCGGGTGGCTGTCATCCAGTTCAGCGATGACCCCAAGGCGGAGTTCCTGCTGAACGCCCATTCC CTGGAGTACGTGTCCAGGAACATCTTCAAGAGGCCCCTGGGGAGCCGCATTGAAGAGGGCGTCCCACAGTTCCTG GTCCTCATCTCGTCTGGAAAGTCTGACGATGAGGTGGTCGTCCCGGCGGTGGAGCTCAAGCAGTTTGGCGTGGCC CCTTTCACGATCGCCAGGAACGCAGACCAGGAGGAGCTGGTGAAGATCTCGCTGAGCCCCGAATATGTGTTCTCG GTGAGCACCTTCCGGGAGCTGCCCAGCCTGGAGCAGAAACTGCTGACGCCCATCACGACCCTGACCTCAGAGCAG ATCCAGAAGCTCTTAGCCAGCACTCGCTATCCACCTCCAGTGCGAGAGTTCAGAAGAGCTTCCCAACATAGAAGAA AGAATCATGAACTCGTTTGGACCCTCCGCAGCCACTCCTGCACCTCCAGGGGTGGACACCCCTCCTCCTTCACGG CCAGAGAAGAAGAAAGCAGACATTGTGTTCCTGTTGGATGGTTCCATCAACTTCAGGAGGGACAGTTTCCAGGAA TACAACTCTGACCCCACTGACGAATTCTTCCTGAAGGACTTCTCTACCAAGAGGCAGATTATTGACGCCATCAAC AAAGTGGTCTACAAAGGGGGAAGACACCCCAACACTAAGGTGGGCCTTGAGCACCTGCGGGTAAACCACTTTGTG CCTGAGGCAGCCGCCTGGACCAGCGGGTCCCTCAGATTGCCTTTGTGATCACGGGAGGAAAGTCGGTGGAA GATGCACAGGATGTGAGCCTGGCCCTCACCCAGAGGGGGGTCAAAGTGTTTGCTGTTGGAGTGAGGAATATCGAC ICGGAGGAGGTTGGAAAGATAGCGTCCAACAGCGCCACAGCGTTCCGCGTGGGCAACGTCCAGGAGCTGTCCGAA CTGAGCGAGCAAGTTTTGGAAACTTTGCATGATGCGATGCATGAAACCCTTTGCCCTGGTGTAACTGATGCTGCC AAAGCTTGTAATCTGGATGTGATTCTGGGGTTTGATGGTTCTAGAGACCAGAATGTTTTTTGTGGCCCAGAAGGGC TTCGAGTCCAAGGTGGACGCCATCTTGAACAGAATCAGCCAGATGCACAGGGTCAGCTGCAGCGGTGGCCGCTCG CCCACCGTGCGTGTCAGTGGTGGCCAACACGCCCTCGGGCCCGGTGGAGGCCTTTGACTTTGACGAGTACCAG GATCTGGCTGATTTACACAGAGCATCTGAGAACCTCCGCCAAGAAGGAGTCCGTGCCTTGATCCTGGTGGGCCTT CTTAACTTGCTGGACTTGGATTATGAACTAGCGGAGCAGCTTGACAACATTGCCGAGAAAGCTTGCTGTGGGGTT CCCTGCAAGTGCTCTGGGCAGAGGGGAGACCGCGGGCCCATCGGCAGCATCGGGCCAAAGGGTATTCCTGGAGAA GACGGCTACCGAGGCTATCCTGGTGATGAGGGTGGACCCGGTGAGCGTGGTCCGCCTGGTGTGAACGGCACTCAA GGTTTCCAGGGCTGCCCGGGCCAGAGAGGAGTAAAGGGCTCTCGGGGATTCCCAGGAGAGAAGGGCGAAGTAGGA GAAATTGGACTGGATGGTCTGGATGGTGAAGATGGAGACAAAGGATTGCCTGGTTCTTCTGGAGAGAAAGGGAAT CCTGGAAGAAGGGGTGATAAAGGACCTCGAGGAGAGAAAGAGGAGAAAGAGAGATGTTGGGATTCGAGGGGACCCG GGTAACCCAGGACAAGACAGCCAGGAGAGAGGACCCAAAGGAGAAACCGGTGACCTCGGCCCCATGGGTGTCCCA GGGAGAGATGGAGTACCTGGAGGACCTGGAGAAACTGGGAAGAATGGTGGCTTTGGCCGAAGGGGACCCCCCGGA GCTAAGGGCAACAAGGGCGGTCCTGGCCAGCCGGGCTTTGAGGGAGAGCAGGGGACCAGAGGTGCACAGGGCCCA GCTGGTCCTGCTGGTCCTCCAGGGCTGATAGGAGAACAAGGCATTTCTGGACCTAGGGGAAGCGGAGGTGCCCGT GGCGCTCCTGGAGAACGAGGCAGAACCGGTCCACTGGGAAGAAAGGGTGAGCCCGGAGAGCCAAGAAGGA GGAATCGGGAACCCGGGCCCTCGTGGGGAGACGGGAGATGACGGGAGAGACGGAGTTGGCAGTGAAGGACGCAGA GGCAAAAAAGGAGAAAGAGGATTTCCTGGATACCCAGGACCAAAGGGTAACCCAGGTGAACCTGGGCTAAATGGA ACAACAGGACCCAAAGGCATCAGAGGCCGAAGGGGAAATTCGGGACCTCCAGGGATAGTTGGACAGAAGGGGAGA CCTGGCTACCCAGGACCAGCTGGTCCAAGGGGCCAACAGGGGGGGACTCCATCGATCAATGTGCCCTCATCCAAAGC ATCAAAGATAAATGCCCTTGCTGTTACGGGCCCCTGGAGTGCCCCGTCTTCCCAACAGAACTAGCCTTTGCTTTA GACACCTCTGAGGGAGTCAACCAAGACACTTTCGGCCGGATGCGAGATGTGGTCTTGAGTATTGTGAATGTCCTG ACCATTGCTGAGAGCAACTGCCCGACGGGGGCCCGGGTGGCTGTGGTCACCTACAACAACGAGGTGACCACGGAG ATCCGGTTTGCTGACTCCAAGAGGAAGTCGGTCCTCCTGGACAAGATTAAGAACCTTCAGGTGGCTCTGACATCC

### 231/2682 FIGURE 212C

AAACAGCAGAGTCTGGAGACTGCCATGTCGTTTGTGGCCAGGAACACATTTAAGCGTGTGAGGAACGGATTCCTA ATGAGGAAAGTGGCTGTTTTCTTCAGCAACACCCCACAAGAGCATCCCCACAGCTCAGAGAGGCTGTGCTCAAA  $\verb|CTCTCAGATGCGGGGATCACCCCCTTGTTCCTTACAAGGCAGGAAGACCGGCAGCTCATCAACGCTTTGCAGATC| \\$ AATAACACAGCAGTGGGGCATGCGCTTGTCCTGCCTGCAGGGAGAGCCTCACAGACTTCCTGGAGAATGTCCTC GACAGGAGAGCGGCAGGGAGTGATGTGGACATCGACATGGCTTTCATCTTAGACAGCGCTGAGACCACCACCCTG TTCCAGTTCAATGAGATGAAGAAGTACATAGCGTACCTGGTCAGACAACTGGACATGAGCCCAGATCCCAAGGCC TCCCAGCACTTCGCCAGAGTGGCAGTTGTGCAGCACGCGCCCTCTGAGTCCGTGGACAATGCCAGCATGCCACCT GTGAAGGTGGAATTCTCCCTGACTGACTATGGCTCCAAGGAGAAGCTGGTGGACTTCCTCAGCAGGGGAATGACA CAGTTGCAGGGAACCAGGGCCTTAGGCAGTGCCATTGAATACACCATAGAGAATGTCTTTGAAAGTGCCCCAAAC CCACGGGACCTGAAAATTGTGGTCCTGATGCTGACGGGCGAGGTGCCGGAGCAGCAGCTGGAGGAGGCCCAGAGA GTCATCCTGCAGGCCAAATGCAAGGGCTACTTCTTCGTGGTCCTGGGCATTGGCAGGAAGGTGAACATCAAGGAG GTATACACCTTCGCCAGTGAGCCAAACGACGTCTTCTTCAAATTAGTGGACAAGTCCACCGAGCTCAACGAGGAG  $\verb|CCTTTGATGCGCTTCGGGAGGCTGTTGCCGTCCTTCGTCAGCAGTGAAAATGCTTTTTACTTGTCCCCAGATATC| \\$ GTTCCGAATAACGTTACTTCAAGTCCTACATCCAACCCAGTGACGACGAAGCCGGTGACTACGACGAAGCCG GTGACCACCACAACAAAGCCTGTAACCACCACAACAAAGCCTGTGACTATTATAAATCAGCCATCTGTGAAGCCA GCCGCTGCAAAGCCGGCCCCTGCGAAACCTGTGGCTGCCAAGCCTGTGGCCACAAAGACGGCCACTGTTAGACCC CCAGTGGCGGTGAAGCCAGCAACAGCAGCGAAGCCTGTAGCAGCAAAGCCAGCAGCTGTAAGACCCCCCGCTGCT ACCACTAAGCCCGTGGTTAAGATGCTCCGTGAAGTCCAGGTGTTTGAGATAACAGAGAACAGCGCCAAACTCCAC TGGGAGAGGCCTGAGCCCCCGGTCCTTATTTTTATGACCTCACCGTCACCTCAGCCCATGATCAGTCCCTGGTT CTGAAGCAGAACCTCACGGTCACGGACCGCGTCATTGGAGGCCTGCTCGCTGGGCAGACATACCATGTGGCTGTG GTCTGCTACCTGAGGTCTCAGGTCAGAGCCACCTACCACGGAAGTTTCAGTACAAAGAAATCTCAGCCCCCACCT CCACAGCCAGCAAGGTCAGCTTCTAGTTCAACCATCAATCTAATGGTGAGCACAGAACCATTGGCTCTCACTGAA ACAGATATATGCAAGTTGCCGAAAGACGAAGGAACTTGCAGGGATTTCATATTAAAATGGTACTATGATCCAAAC ATCATATACCTCTTGAAGAAGAAGAAGGAGTCAGCCATCGCCAACTTGTCTCTGTAGAAGCTCCGGGTGTAGATTCCC TGGTGCTAATGTGTCTGTGGACCCTCGCTCTCTGTCTCCAGCAGTTCTCTCGAATACTTTGAATGTTGTAACA GTTAGCCACTGCTGGTGTTTATGTGAACATTCCTATCAATCCAAATTCCCTCTGGAGTTTCATGTTATGCCTGTT GCAGGCAAATGTAAAGTCTAGAAAATAATGCAAATGTCACGGCTACTCTATATACTTTTTGCTTGGTTCATTTTTT TTCCCTTTTAGTTAAGCATGACTTTAGATGGGAAGCCTGTGTATCGTGGAGAAACAAGAGACCAACTTTTTCATT CCCTGCCCCAATTTCCCAGACTAGATTTCAAGCTAATTTTCTTTTTTCTGAAGCCTCTAACAAATGATCTAGTTC AAAAAA

 $\mathtt{MRKHRHLPLVAVFCLFLSGFPTTHAQQQQADVKNGAAADIIFLVDSSWTIGEEHFQLVREFLYDVVKSLAVGEND$ FHFALVQFNGNPHTEFLLNTYRTKQEVLSHISNMSYIGGTNQTGKGLEYIMQSHLTKAAGSRAGDGVPQVIVVLT DGHSKDGLALPSAELKSADVNVFAIGVEDADEGALKEIASEPLNMHMFNLENFTSLHDIVGNLVSCVHSSVSPER AGDTETLKDITAQDSADIIFLIDGSNNTGSVNFAVILDFLVNLLEKLPIGTQQIRVGVVQFSDEPRTMFSLDTYS TKAQVLGAVKALGFAGGELANIGLALDFVVENHFTRAGGSRVEEGVPQVLVLISAGPSSDEIRYGVVALKQASVF SFGLGAQAASRAELQHIATDDNLVFTVPEFRSFGDLQEKLLPYIVGVAQRHIVLKPPTIVTQVIEVNKRDIVFLV DGSSALGLANFNAIRDFIAKVIQRLEIGQDLIQVAVAQYADTVRPEFYFNTHPTKREVITAVRKMKPLDGSALYT GSALDFVRNNLFTSSAGYRAAEGIPKLLVLITGGKSLDEISQPAQELKRSSIMAFAIGNKGADQAELEEIAFDSS LVFIPAEFRAAPLQGMLPGLLAPLRTLSGTPEVHSNKRDIIFLLDGSANVGKTNFPYVRDFVMNLVNSLDIGNDN IRVGLVQFSDTPVTEFSLNTYQTKSDILGHLRQLQLQGGSGLNTGSALSYVYANHFTEAGGSRIREHVPQLLLLL TAGQSEDSYLQAANALTRAGILTFCVGASQANKAELEQIAFNPSLVYLMDDFSSLPALPQQLIQPLTTYVSGGVE EVPLAQPESKRDILFLFDGSANLVGQFPVVRDFLYKIIDELNVKPEGTRIAVAQYSDDVKVESRFDEHQSKPEIL NLVKRMKIKTGKALNLGYALDYAQRYIFVKSAGSRIEDGVLQFLVLLVAGRSSDRVDGPASNLKQSGVVPFIFQA KNADPAELEQIVLSPAFILAAESLPKIGDLHPQIVNLLKSVHNGAPAPVSGEKDVVFLLDGSEGVRSGFPLLKEF VQRVVESLDVGQDRVRVAVVQYSDRTRPEFYLNSYMNKQDVVNAVRQLTLLGGPTPNTGAALEFVLRNILVSSAG SRITEGVPQLLIVLTADRSGDDVRNPSVVVKRGGAVPIGIGIGNADITEMQTISFIPDFAVAIPTFRQLGTVQQV ISERVTQLTREELSRLQPVLQPLPSPGVGGKRDVVFLIDGSQSAGPEFQYVRTLIERLVDYLDVGFDTTRVAVIQ FSDDPKAEFLLNAHSSKDEVQNAVQRLRPKGGRQINVGNALEYVSRNIFKRPLGSRIEEGVPQFLVLISSGKSDD EVVVPAVELKQFGVAPFTIARNADQEELVKISLSPEYVFSVSTFRELPSLEQKLLTPITTLTSEQIQKLLASTRY PPPVREFRELPNIEERIMNSFGPSAATPAPPGVDTPPPSRPEKKKADIVFLLDGSINFRRDSFQEVLRFVSEIVD TVYEDGDSIQVGLVQYNSDPTDEFFLKDFSTKRQIIDAINKVVYKGGRHANTKVGLEHLRVNHFVPEAGSRLDQR VPQIAFVITGGKSVEDAQDVSLALTQRGVKVFAVGVRNIDSEEVGKIASNSATAFRVGNVQELSELSEQVLETLH DAMHETLCPGVTDAAKACNLDVILGFDGSRDQNVFVAQKGFESKVDAILNRISQMHRVSCSGGRSPTVRVSVVAN TPSGPVEAFDFDEYQPEMLEKFRNMRSQHPYVLTEDTLKVYLNKFRQSSPDSVKVVIHFTDGADGDLADLHRASE NLRQEGVRALILVGLERVVNLERLMHLEFGRGFMYDRPLRLNLLDLDYELAEQLDNIAEKACCGVPCKCSGQRGD RGPIGSIGPKGIPGEDGYRGYPGDEGGPGERGPPGVNGTQGFQGCPGQRGVKGSRGFPGEKGEVGEIGLDGLDGE DGDKGLPGSSGEKGNPGRRGDKGPRGEKGERGDVGIRGDPGNPGQDSQER

### 233/2682 FIGURE 214

GTTGGTGAGCATCATCGCAACCGTTACAGCCACAACCAAAGTCCCGGAGATCCGTGATGTAACAAGGATTGAGCG AATCGGTGCCCACTCCCACATCCGGGGACTGGGGCTGGACGATGCCTTGGAGCCTCGGCAGGCTTCGCAAGGCAT GGTGGGTCAGCTGGCGGCACGGCGGGCGGCTGGCGTGGTGCTGGAGATGATCCGGGAAGGGAAGATTGCCGGTCG GGCAGTCCTTATTGCTGGCCAGCCGGGCACGGGGAAGACGGCCATCGCCATGGGCATGGCGCAGGCCCTGGGCCC TGACACGCCATTCACAGCCATCGCCGGCAGTGAAATCTTCTCCCTGGAGATGAGCAAGACCGAGGCGCTGACGCA GGCCTTCCGGCGGTCCATCGGCGTTCGCATCAAGGAGGAGACGGAGATCATCGAAGGGGAGGTGGTGGAGATCCA GATTGATCGACCAGCAACAGGGACGGGCTCCAAGGTGGGCAAACTGACCCTCAAGACCACAGAGATGGAGACCAT CTACGACCTGGGCACCAAGATGATTGAGTCCCTGACCAAGGACAAGGTCCAGGCCGGGGACGTGATCACCATCGA CAAGGCGACGGCCAAGATCTCCAAGCTGGGCCGCTCCTTCACACGCGCCCGCGACTACGACGCTATGGGCTCCCA GACCAAGTTCGTGCAGTGCCCAGATGGGGAGCTCCAGAAACGCAAGGAGGTGGTGCACACCGTGTCCCTGCACGA GATCGACGTCATCAACTCTCGCACCCAGGGCTTCCTGGCGCTCTTCTCAGGTGACACAGGGGAGATCAAGTCAGA AGTCCGTGAGCAGATCAATGCCAAGGTGGCTGAGTGGCGCGAGGAGGGCGAAGGCGGAGATCATCCCTGGAGTGCT GCCTGTCCTGATCATGGCCACCAACCGTGGCATCACGCGAATCCGGGGCACCAGCTACCAGAGCCCTCACGGCAT CCCCATAGACCTGCTGGACCGGCTGCTTATCGTCTCCACCACCCCCTACAGCGAGAAAGACACGAAGCAGATCCT GACGTCACTGCGCTACGCCATCCAGCTCATCACAGCTGCCAGCTTGGTGTGCCGGAAACGCAAGGGTACAGAAGT GCAGGTGGATGACATCAAGCGGGTCTACTCACTCTTCCTGGACGAGTCCCGCTCCACGCAGTACATGAAGGAGTA  $\texttt{CCAGGACGCCTTCCTCTAACGAACTCAAAGGCGAGACCATGGACACCTCC} \underline{\textbf{TGA}} \texttt{GTTGGATGTCATCCCCCGAC}$ CCCACCCTGTTTTCCACCAGAGTTCTGACACTGTGACTCTGTATAAAATGGTTGGGAAGCTGC

MATVTATTKVPEIRDVTRIERIGAHSHIRGLGLDDALEPRQASQGMVGQLAARRAAGVVLEMIREGKIAGRAVLI AGQPGTGKTAIAMGMAQALGPDTPFTAIAGSEIFSLEMSKTEALTQAFRRSIGVRIKEETEIIEGEVVEIQIDRP ATGTGSKVGKLTLKTTEMETIYDLGTKMIESLTKDKVQAGDVITIDKATGKISKLGRSFTRARDYDAMGSQTKFV QCPDGELQKRKEVVHTVSLHEIDVINSRTQGFLALFSGDTGEIKSEVREQINAKVAEWREEGKAEIIPGVLFIDE VHMLDIESFSFLNRALESDMAPVLIMATNRGITRIRGTSYQSPHGIPIDLLDRLLIVSTTPYSEKDTKQILRIRC EEEDVEMSEDAYTVLTRIGLETSLRYAIQLITAASLVCRKRKGTEVQVDDIKRVYSLFLDESRSTQYMKEYQDAF LFNELKGETMDTS

GAGCAGCGGGCCTGACGGGACCAAGGCGGCGGGAGTCTGCGGTCGTTCCCTCGGCTGTGGACCGGGCGCACGC ACGCGGTGCAGGGTAACATGGCGGATGCGGAAGTAATTATTTTGCCAAAGAAACATAAGAAGAAAAAAGGAGCGGA AGTCATTGCCAGAAGAAGATGTAGCCGAAATACAACACGCTGAAGAATTTCTTATCAAACCTGAATCCAAAGTTG CTAAGTTGGACACGTCTCAGTGGCCCCTTTTGCTAAAGAATTTTGATAAGCTGAATGTAAGGACAACACACTATA CACCTCTTGCATGTGGTTCAAATCCTCTGAAGAGAGAGATTGGGGACTATATCAGGACAGGTTTCATTAATCTTG ACAAGCCCTCTAACCCCTCTTCCCATGAGGTGGTAGCCTGGATTCGACGGATACTTCGGGTGGAGAAGACAGGGC ACAGTGGTACTCTGGATCCCAAGGTGACTGGTTGTTTAATCGTGTGCATAGAACGAGCCACTCGCTTGGTGAAGT CACAACAGAGTGCAGGCAAAGAGTATGTGGGGGATTGTCCGGCTGCACAATGCTATTGAAGGGGGGACCCAGCTTT CTAGGGCCCTAGAAACTCTGACAGGTGCCTTATTCCAGCGACCCCCACTTATTGCTGCAGTAAAGAGGCAGCTCC GAGTGAGGACCATCTACGAGAGCAAAATGATTGAATACGATCCTGAAAGAAGATTAGGAATCTTTTGGGTGAGTT GTGAGGCTGGCACCTACATTCGGACATTATGTGTGCACCTTGGTTTGTTATTGGGAGTTGGTGGTCAGATGCAGG AGCTTCGGAGGGTTCGTTCTGGAGTCATGAGTGAAAAGGACCACATGGTGACAATGCATGATGTGCTTGATGCTC AGTGGCTGTATGATAACCACAAGGATGAGAGTTACCTGCGGCGAGTTGTTTACCCTTTGGAAAAGCTGTTGACAT CTCATAAACGGCTGGTTATGAAAGACAGTGCAGTAAATGCCATCTGCTATGGGGCCCAAGATTATGCTTCCAGGTG TTCTTCGATATGAGGACGGCATTGAGGTCAATCAGGAGATTGTGGTTATCACCACCAAAGGAGAAGCAATCTGCA TGGCTATTGCATTAATGACCACAGCGGTCATCTCTACCTGCGACCATGGTATAGTAGCCAAGATCAAGAGAGTGA TCATGGAGAGACACTTACCCTCGGAAGTGGGGTTTAGGTCCAAAGGCAAGTCAGAAGAAGCTGATGATCAAGC AGGGCCTTCTGGACAAGCATGGGAAGCCCACAGACAGCACCTGCCACCTGGAAGCAGGAGTATGTTGACTACA GTGAGTCTGCCAAAAAAGAGGTGGTTGCTGAAGTGGTAAAAGCCCCGCAGGTAGTTGCCGAAGCAGCAAAAAACTG CGAAGCGGAAGCGAGAGTGAGAGTGAAAGTGACGAGACTCCTCCAGCAGCTCCTCAGTTGATCAAGAAGGAAA AGAAGAAGAGTAAGAAGGACAAGAAGGCCAAAGCTGGTCTGGAGAGGGGGGCCGAGCCTGGAGATGGGGACAGTG ATACCACCAAGAAGAAGAAGAAGAAGAAGAAAGCAAAAGAGGTAGAATTGGTTTCTGAG<u>TAG</u>TGAAGGCCACTTG AAGCTGGAGGAGAACTAAAGCCTTATTGAGAAAACATGTTATAGATCCTTTTGTTGCTGAGAGAGTGGAACATA GGTCCTAGACAGGGTGAAGAGTTCTGGCACATTTTAGCTGCTACTTTGAGACCTCGGTGATGTTACCTGGTGTGG TCATCCCATCTTGTCCTGTTTTAAGGATATGGGTGGTGAAAGATGAAAGAGGCAGAGTTTATCCCAATGACTTCT CTGTTTGAGTTGGGAAGCCTCACCTTCAGACCCAGTAACTGTCCGCAGCTGTCTGCTAGTGGTTGTCTTAACATC GTAGTCCTAGTTTGCATTTTTAAATCCCCTCTGTTTAAAAGGTTTGTAAAACAAAAACAAAAACTAAGTCTGC TCAGTGAAATGCTGTAGAACCCTAAATAAGTGGTAGAAGAGTGTCACTGAATTTTGTCTCTGAATTCAGTATAAC TGAGTTTTGTCCATGCTGGTGTCTGGGGTTATAGGCCTGATGGGCCTGGTAGTTTTCCATCTTGTTCTGGCCTAGA GGTCAGTCCTTTGCACTTCCTCAAAGCTTGTGTACAGTGCTCACCTAAATCCATCTGACTACTTGTTCCTGTGCC CTCTTGTTTTAGGCCTCGTTTACTTTTAAAAAATGAAATTGTTCATTGCTGGGAGAAGAATGTTGTAATTTTTAC TTATTAAAGTCAACTTGTTAAGTTTTTTATGTATTCCTGTTGGGTTTTCTTGTTGATCTCATGCTAGCAGAGCAA AAATTGTAAAATATTTTGATTAAAAATCTAGGGACCTTTATGTCCTATTTGGAATTCGATATCAA

# 236/2682 FIGURE 217

MADAEVIILPKKHKKKKERKSLPEEDVAEIQHAEEFLIKPESKVAKLDTSQWPLLLKNFDKLNVRTTHYTPLACG SNPLKREIGDYIRTGFINLDKPSNPSSHEVVAWIRRILRVEKTGHSGTLDPKVTGCLIVCIERATRLVKSQQSAG KEYVGIVRLHNAIEGGTQLSRALETLTGALFQRPPLIAAVKRQLRVRTIYESKMIEYDPERRLGIFWVSCEAGTY IRTLCVHLGLLLGVGGQMQELRRVRSGVMSEKDHMVTMHDVLDAQWLYDNHKDESYLRRVVYPLEKLLTSHKRLV MKDSAVNAICYGAKIMLPGVLRYEDGIEVNQEIVVITTKGEAICMAIALMTTAVISTCDHGIVAKIKRVIMERDT YPRKWGLGPKASQKKLMIKQGLLDKHGKPTDSTPATWKQEYVDYSESAKKEVVAEVVKAPQVVAEAAKTAKRKRE SESESDETPPAAPQLIKKEKKKSKKDKKAKAGLESGAEPGDGDSDTTKKKKKKKKKKKKEVELVSE

CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACGGGGGAAGTCCATCTACGGAAGCCGCTTTCCTG ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  ${\tt ACTGTGGCCAGTTGAGC} \underline{{\tt TAA}} {\tt TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG}$ GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTC ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG CTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCCC AGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG TGAAGCCTGTTGGTTTGCTGCTGTTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG ΑΑΑΑΑΑΑΑΑΑΑΑ

# 238/2682 FIGURE 219

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCCTCTTCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCCTGTCCATGGCTAATGCTGGTCCTAACACCAACGGCT CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCGGTCACGTCAAAGAGG GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG ACTGTGGCCAGTTGAGC<u>TAA</u>TCTGTGGCCAGGGTGCTGGCATGGTĠGCAGCTGCAAATGTCCATGCACCCAGGTG GCCGCGTTGGGCTGTCAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCTTGTCAAGCATTGCCTGTGATTGCCCAGCCCAGATTC ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG CTAGAAGTGAAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC AGAGCTTGGCTTTTGAAACACAACTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTTTATG AAAAAAAAAAAAAA

### 240/2682 FIGURE 221

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA ENFRALCTGEKGFGYKGSTFHRVIPSFMCQAGDFTNHNGTGGKSIYGSRFPDENFTLKHVGPGVLSMANAGPNTN GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

### 241/2682 FIGURE 222

 ${\tt CCCGCAGCTCGTCCGCGCCATC}{\tt TTCCAGGCGGCCGAGCGCCCCCAGGAGTGGGCCATGGAGGGCCCCCGCGACGG}$ GCTGAAGAAGGAGCGGCTACTGGACGACCGCCACGACAGCGGCCTGGACTCCATGAAAGACGAGGAGTACGAGCA GCTCACCGAGGACGGGGACTCGTTCCTGCACTTGGCCATCATCCATGAAGAAAAGGCACTGACCATGGAAGTGAT CCGCCAGGTGAAGGGAGACCTGGCTTTCCTCAACTTCCAGAACAACCTGCAGCAGACTCCACTTCGCTGT AAATACCCCCCTACACCTTGCCTGTGAGCAGGGCTGCCTGGCCAGCGTGGGAGTCCTGACTCAGTCCTGCACCAC CCCGCACCTCCACTCCATCCTGAAGGCTACCAACTACAATGGCCACACGTGTCTACACTTAGCCTCTATCCATGG CTACCTGGGCATCGTGGAGCTTTTGGTGTCCTTGGGTGCTGATGTCAATGCTCAGGAGCCCTGTAATGGCCGGAC TGCCCTTCACCTCGCAGTGGACCTGCAAAATCCTGACCTGGTGTCACTCCTGTTGAAGTGTGGGGCTGATGTCAA CAGAGTTACCTACCAGGGCTATTCTCCCTACCAGCTCACCTGGGGCCGCCCAAGCACCCGGATACAGCAGCAGCT GGGCCAGCTGACACTAGAAAACCTTCAGATGCTGCCAGAGAGTGAGGATGAGGAGAGCTATGACACAGAGTCAGA  $\tt GTTCACGGAGTTCACAGAGGACGAGCTGCCCTATGATGACTGTGTTTTGGAGGCCAGCGTCTGACGTTA\underline{TGA}_{GT}$ GAAGAAAAATTTAAAGGGTGTACTTATATCCACACTGCACACTGCCCAAAACGTCTTATTGTGGTAGGA TCAGCCCTCATTTTGTTGCTTTTTGTGAACTTTTTGTAGGGGACGAGAAAGATCATTGAAATTCTGAGAAAACTTC TTTTAAACCTCACCTTTGTGGGGTTTTTGGAGAAGGTTATCAAAAATTTCATGGAAGGACCACATTTTATATTTA TTGTGCTTCGAGTGACCGCCAGTGGTATCCTGTGACATGTAACAGCCAGGAGTGTTAAGCGTTCAGTGATGT GGGGTGAAAAGTTACTACCTGTCAAGGTTTGTGTTACCCTCCTGTAAATGGTGTACATAATGTATTGTTGGTAAT TATTTTGGTACTTTTATGATGTATATTTATTAAAGAGATTTTTACAAATG

# 242/2682 FIGURE 223

MFQAAERPQEWAMEGPRDGLKKERLLDDRHDSGLDSMKDEEYEQMVKELQEIRLEPQEVPRGSEPWKQQLTEDGD SFLHLAIIHEEKALTMEVIRQVKGDLAFLNFQNNLQQTPLHLAVITNQPEIAEALLGAGCDPELRDFRGNTPLHL ACEQGCLASVGVLTQSCTTPHLHSILKATNYNGHTCLHLASIHGYLGIVELLVSLGADVNAQEPCNGRTALHLAV DLQNPDLVSLLLKCGADVNRVTYQGYSPYQLTWGRPSTRIQQQLGQLTLENLQMLPESEDEESYDTESEFTEFTE DELPYDDCVFGGQRLTL

### 243/2682 FIGURE 224

GACCTGCAGCCTGTGGCCCGGCCAGGCCCTGTCGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA CCAGGACATCCTCGTCTTCCGCAGTAAGACCTATGGCAACGTGCTGGTGTTGGACGGTGTCATCCAGTGCACGGA GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT GATCATCGGGGGGGGAGATGGAGGTGTCCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAAGTTCCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA GGTGACCCTACATGTGGGTGACGGTTTTGAGTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCCTATTACCAGCTCATGAAGACAGCCCTCAA GGAAGATGGTGTCCTCTGCTGCCAGGGCGAGTGCGAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT CTGCCAGTCCCTGTTCCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCCAGCGGCCAGATCGGCTT CATGCTGTGCAGCAAGAACCCGAGCACGAACTTCCAGGAGCCGGTGCAGCCGCTGACACAGCAGCAGCAGCGCA GATGCAGCTGAAGTACTACAACTCCGACGTGCACCGCGCCCTTTGTGCTGCCCGAGTTTGCCCGCAAGGCCCT  ${\tt GAATGATGTGAGC} \underline{{\tt TGA}}{\tt GCCCAGGGCGCCACCACTGATGCCACCCAGGACCTCGGACCTTGGAGCCTGCGGGGTGCC}$ TGTGTACAGCGCCATCTCTCTGCCTTCTGTTGCCCCCG

### 244/2682 FIGURE 225

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSLQVEQLLHHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD EFSYQEMIANLPLCSHPNPRKVLIIGGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT LHVGDGFEFMKQNQDAFDVIITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ SLFPVVAYAYCTIPTYPSGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMQLKYYNSDVHRAAFVLPEFARKALND VS

 ${\tt ACTCGTGCGTGAGGCGAGAGGCCGGAGACGAGACCGGGGCTGACTCGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGCTGAGAGGCCGAACTCGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGCTGAGAGGCCGAACTCGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGCTGAGAGGCCGAACTCGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGCTGAGAGGCCGAACTCGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGGCTGAGAGGCCGAACTCGGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGGCTGAGAGGCCGAACTCGGGGCTGAGAGGCCGAACTCGGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGGCTGAGAGGCCGAACTCGGGGTTCTGACAAG{\tt ATG}{\tt GCCGGGGCTGAGAGGCCGAACTCGGGGTTGAGGGCCGAACTCGGGGGCCGAACTCGGGGGCCGAACTCGGGGGCCGAACTCGGGGGCCGAACTCGGGGGCCGAACTCGGGGGCCGAACTCGGGCCGAACTCGGGGCCGAACTCGGGGCCGAACTCGGGGCCGAACTCGGGGCCGAACTCGGGGCCGAACTCGGGGCCGAACTCAACTCA$ CCCCGCAGGATCATCAAGGAAACCCAGCGTTTGCTGGCAGAACCAGTTCCTGGCATCAAAGCCGAACCAGATGAG GAACTATTCCTTCCAGAAGAATACCCAATGGCAGCCCCTAAAGTACGTTTCATGACCAAAATTTATCATCCTAAT GTAGACAAGTTGGGAAGAATATGTTTAGATATTTTGAAAGATAAGTGGTCCCCAGCACTGCAGATCCGCACAGTT CTGCTATCGATCCAGGCCTTGTTAAGTGCTCCCAATCCAGATGATCCATTAGCAAATGATGTAGCGGAGCAGTGG  ${\tt CAGTCTTAGAAACATTACAGAATAAAAAAGCCCAGACATCTTCAGTCCTTTGGTGATTAAATGCACATTAGCAAA}$ TCTATGTCTTGTCCTGATTCACTGTCATAAAGCATGAGCAGAGGCTAGAAGTATCATCTGGATTGTTGTGAAACG GTAGTTTAATTTTATGGGCTCCTTTCCCCCTTTTTTGGTGATCTAATTGCATTGGTTAAAAGCAGCTAACCAGGT  $\tt CTTTAGAATATGCTCTAGCCAAGTCTAACTTTATTTAGACGCTGTAGATGGACAAGCTTGATTGTTGGAACCAAA$ ATGGGAACATTAAACAAACATCACAGCCCTCACTAATAACATTGCTGTCAAGTGTAGATTCCCCCCTTCAAAAAA AGCTTGTGACCATTTTGTATGGCTTGTCTGGAAACTTCTGTAAATCTTATGTTTTAGTAAAATATTTTTTGTTAT TCT

# 246/2682 FIGURE 227

 $\label{thm:maglpriiketqrlaepvpgikaepdesnaryfhvviagpqdspfeggtfklelflpeeypmaapkvrfmtkiyhpnvdklgricldilkdkwspalqirtvllsiqallsapnpddplandvaeqwktneaqaietarawtrlyamnni$ 

### 247/2682 FIGURE 228

AGGCGTCATCGAGAGTAACTGGAATGAGATTGTTGACAGCTTTGATGACATGAACCTCTCGGAGTCCCTTCTCCG TGGCATCTACGCCTATGGTTTTGAGAAGCCCTCTGCCATCCAGCAGCCATCCTACCTTGTATCAAGGGTTA TGATGTGATTGCTCAAGCCCAATCTGGGACTGGGAAAACGGCCACATTTGCCATATCGATTCTGCAGCAGATTGA ATTAGATCTAAAAGCCACCCAGGCCTTGGTCCTAGCACCCACTCGAGAATTGGCTCAGCAGATACAGAAGGTGGT GAAACTGCAGATGGAAGCTCCCCACATCATCGTGGGTACCCCTGGCCGTGTGTTTGATATGCTTAACCGGAGATA CCTGTCCCCCAAATACATCAAGATGTTTGTACTGGATGAAGCTGACGAAATGTTAAGCCGTGGATTCAAGGACCA GATCTATGACATATTCCAAAAGCTCAACAGCAACACCCAGGTAGTTTTGCTGTCAGCCACAATGCCTTCTGATGT TATCCGCCAGTTCTACATCAACGTGGAACGAGAGGAGTGGAAGCTGGACACACTATGTGACTTGTATGAAACCCT AGATTTCACTGTATCCGCCATGCATGGAGATATGGACCAAAAGGAACGAGACGTGATTATGAGGGAGTTTCGTTC TGGCTCTAGCAGAGTTTTGATTACCACTGACCTGCTGGCCAGAGGCATTGATGTGCAGCAGGTTTCTTTAGTCAT CAACTATGACCTTCCCACCAACAGGGAAAACTATATCCACAGAATCGGTCGAGGTGGACGGTTTGGCCGTAAAGG TGTGGCTATTAACATGGTGACAGAAGAAGACAAGAGGACTCTTCGAGACATTGAGACCTTCTACAACACCTCCAT  ${\tt TGAGGAAATGCCCCTCAATGTTGCTGACCTCATC} \underline{{\tt TGA}}{\tt GGGGCTGTCCTGCCACCCAGCCCAGCCAGGGGCTCAAT}$ TGAATAAATGTCACTTTTTGAGGCAAAAGAAGG

### 248/2682 FIGURE 229

MSASQDSRSRDNGPDGMEPEGVIESNWNEIVDSFDDMNLSESLLRGIYAYGFEKPSAIQQRAILPCIKGYDVIAQ AQSGTGKTATFAISILQQIELDLKATQALVLAPTRELAQQIQKVVMALGDYMGASCHACIGGTNVRAEVQKLQME APHIIVGTPGRVFDMLNRRYLSPKYIKMFVLDEADEMLSRGFKDQIYDIFQKLNSNTQVVLLSATMPSDVLEVTK KFMRDPIRILVKKEELTLEGIRQFYINVEREEWKLDTLCDLYETLTITQAVIFINTRRKVDWLTEKMHARDFTVS AMHGDMDQKERDVIMREFRSGSSRVLITTDLLARGIDVQQVSLVINYDLPTNRENYIHRIGRGGRFGRKGVAINM VTEEDKRTLRDIETFYNTSIEEMPLNVADLI

### 249/2682 FIGURE 230

# 250/2682 FIGURE 231

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENSSTAIGIRCKDGVVFGVEKLVLSKLYEEGSNKRLFNVDRHVG MAVAGLLADARSLADIAREEASNFRSNFGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH EIVPKDIREEAEKYAKESLKEEDESDDDNM

### 251/2682 FIGURE 232

# 252/2682 FIGURE 233

 ${\tt MKAFSPVRSVRKNSLSDHSLGISRSKTPVDDPMSLLYNMNDCYSKLKELVPSIPQNKKVSKMEILQHLIDYILDLQIALDSHPTIVSLHHQRPGQNQRSRTPLTTLNTDISILSLQASEFPSELMSNDSKALCG}$ 

### 253/2682 FIGURE 234A

ATTGCAACACATGCAGCTGCCTGGAGAGAGGGAGCCGGTGTCCTACGTCAGAGCCGCCGCCGCCGAGCCGCCG  $\tt CCGGGGAGGAGCAGCCGCCCCAGGACTGGGCCCTTAGGGAGGAGGAGGAGAAGAAGATGGCGGACGACCCCC$ AGTGCTGCCGACAGGAACGTGGAGATCTGGAAGATCAAGAAGCTCATTAAGAGCTTGGAGGCGGCCCGCGGCAAT GGCACCAGCATGATATCATTGATCATTCCTCCCAAAGACCAGATTTCACGAGTGGCAAAAAATGTTAGCGGATGAG TTTGGAACTGCATCTAACATTAAGTCACGAGTAAACCGCCTTTCAGTCCTGGGAGCCATTACATCTGTACAACAA AGACTCAAACTTTATAACAAAGTACCTCCAAATGGTCTGGTTGTATACTGTGGAACAATTGTAACAGAAGAAGGA AAGGAAAAGAAAGTCAACATTGACTTTGAACCTTTCAAACCAATTAATACGTCATTGTATTTGTGTGACAACAAA TTCCATACAGAGGCTCTTACAGCACTACTTTCAGATGATAGCAAGTTTGGATTCATTGTAATAGATGGTAGTGGT GCACTTTTTGGCACACTCCAAGGAAACACAAGAGAAGTCCTGCACAAATTCACTGTGGATCTCCCAAAGAAACAC GGTAGAGGAGGTCAGCCTTGCGTTTTGCCCGTTTAAGAATGGAAAAGCGACATAACTATGTTCGGAAAGTA GCAGAGACTGCTGTGCAGCTGTTTATTTCTGGGGACAAAGTGAATGTGGCTGGTCTAGTTTTAGCTGGATCCGCT GACTTTAAAACTGAACTAAGTCAATCTGATATGTTTGATCAGAGGTTACAATCAAAAGTTTTAAAATTAGTTGAT ATATCCTATGGTGGTGAAAATGGATTCAACCAAGCTATTGAGTTATCTACTGAAGTCCTCTCCAACGTGAAATTC ATTCAAGAGAAGAAATTAATAGGACGATACTTTGATGAAATCAGCCAGGACACGGGCAAGTACTGTTTTGGCGTT GAAGATACACTAAAGGCTTTGGAAATGGGAGCTGTAGAAATTCTAATAGTCTATGAAAATCTGGATATAATGAGA CATTTCACAGACAAAGAGACCGGACAGGAACATGAGCTTATCGAGAGCATGCCCCTGTTGGAATGGTTTGCTAAC AACTATAAAAAATTTGGAGCTACGTTGGAAATTGTCACAGATAAATCACAAGAAGGGTCTCAGTTTGTGAAAGGA TTTGGTGGAATTGGAGGTATCTTGCGGTACCGAGTAGATTTCCAGGGAATGGAATACCAAGGAGGAGACGATGAA AAGGAGCATACCCATGGTGGAATCCAAACAGATCCCTGCCTTACAATTGGAACATTTCCAGAACTTAATCCATGA GCATTGGATATTGAAAAGAAAACCGAAACAAAACCAGACCCAGCCCTACACTTTGGTTTGTCATGGTGTCAGCGC AGCAGCCTACAACTAAGTTCCTAAACGCCACTTTGGACTAATTTAAAAAAGAATCCCAGTTTTTACTTTTACTGG AAATTAAATTGCTGCATTTCGCAGTGACCCATTTACATGGCATTCTCAGCTTAGACTGCGTAAGAAGAAATATAT GTGGTGAAATGTTGGAACCATTTCTCTCTTGGTCTCTGTTTAATGTTGAAAGGGTGAGCTAATAGGAGGCACTTT CAACTTCACTCCCTCACGCTACCCCGTCCCCCTCCAGACTGGCAGTTTCAAGGATGCAAATTGCATTGCAAAATC AAACTGACTCATGAAGCATTTGGGCCAGTGCACTGTTTACTTCCATCTGTTTGCAGACACATTTGTGCCCGGCGT TTGGGAGCCCTTTGTATCAATGTTCTGACAAGGGTCCCTATAACCTTAACCTACTCGAAACCGGTTTGGGATGGA TATGATGGGGCTTCTGTGCTATTGCTGGGATTGGGAGAAATAAAACATGCAATTTAAGTGGAAGCGAAGAAATTT AAAGAGGATTTTATTTTGCTTGGGTCAATCCTTGTTAAAAGGGAGGTGGATGTGTTTCCTTGTGTTGGATGGCAT CATGTAATTATAAACTCCTGACCTCCTGGTGGGGTTGGAGCATCTGTTTCAAATGTGGGACTTACAAGCACTTCT CACATGAGAAATTAGGGGCGGGTGGGAAGGGATGGGACACAGCTTCTGGCACCATGGATTTAAGACCATGTTGGA TCCAAAAGTTGGCCTGAAACCCTGAAGCTGATGCTTCACAGCTGGGCTGTAAGTCAGACTTGAACCCAGCTGATA TGCAAGGTCATGGCGTGCCAGGGTGGTGACAGTTGAACAAAGTGTATAGTACGTGCCCAGTGGTAGCGATGGAAA AAAGTATACCAAATGGACTTTGAAGGACCAAAGGTTTTAAAAGTCAATTGGTATCACCTCCACACTGACTAGGGT AGTGGGGTGCATTTGGTTTTCAAATTGGGTACTTTTAACACTTTAGTGCCTGACTGCTGTTCTTTACTGACTTGA TTCAGTCACTCGTAGCTTTATTGGTCTGAACCAGCTCCTTGTTCCCAGGTTACAGACCTGCCTATCGTTCCAATA ATCCTGTTTCACTTGAATGAAGGGAGTATGTCTTAAATGTAAAGTTTCTGGTTCTCACACTGTACTCTGAGGTCC AAATACTGTCTGTCAATGTGTAACCTGATGTCTCAACCCCCTGTGAGAAGAGTCCATTATTTGGTGTTCACCAAC AACACGCTCTCTCACAGCAGTACCTTAGGGTTTTGCCATTGTAAATGGGTCTGATGTGATATGACAAGACCAGA GAAATTGGATGTAAATTTACATTTTTGAATATGCTTGTTGTTTCACATGATACATTTAGGGTATGCAGCTCCTTT TGTAGTTTTTATTTTTACTATTTAAGTTTGGAAATGATGCCAAATTTTTGTATTTCTTTAATCAATGTGTTCTCT ACACATATAAGAGGGGGTGAAAACCGTAGCCTTTGCATTCTCTATAGCCTCTGCAGAGAGATACTAAGCAGCAAA

# 254/2682 FIGURE 234B

ATCTTGGTGTTGTGATGTACAGAAATGGAGAAGAGTATTAAACCATATTTAAG

## 255/2682 FIGURE 235

MADDPSAADRNVEIWKIKKLIKSLEAARGNGTSMISLIIPPKDQISRVAKMLADEFGTASNIKSRVNRLSVLGAI
TSVQQRLKLYNKVPPNGLVVYCGTIVTEEGKEKKVNIDFEPFKPINTSLYLCDNKFHTEALTALLSDDSKFGFIV
IDGSGALFGTLQGNTREVLHKFTVDLPKKHGRGGQSALRFARLRMEKRHNYVRKVAETAVQLFISGDKVNVAGLV
LAGSADFKTELSQSDMFDQRLQSKVLKLVDISYGGENGFNQAIELSTEVLSNVKFIQEKKLIGRYFDEISQDTGK
YCFGVEDTLKALEMGAVEILIVYENLDIMRYVLHCQGTEEEKILYLTPEQEKDKSHFTDKETGQEHELIESMPLL
EWFANNYKKFGATLEIVTDKSQEGSQFVKGFGGIGGILRYRVDFQGMEYQGGDDEFFDLDDY

### 256/2682 FIGURE 236

## 257/2682 FIGURE 237

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHSGPVVA MVWEGLNVVKTGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI YE

CCGCCATTTTGTGAGAAGCAAGGTGGCCTCCACGTTTCCTGAGCGTCTTCTTCGCTTTTGCCTCGACCGCCCCTT GACCACAGACATGTCTCGGGATCGGTTCCGGAGTCGTGGCGGTGGTGGTGGCTTCCACAGGCGTGGAGGAGG CGGCGGCCGCGGCGCCTCCACGACTTCCGTTCTCCGCCGCCCGGCATGGGCCTCAATCAGAATCGCGGCCCCAT GGGTCCTGGCCCGGGCCAGAGCGGCCCTAAGCCTCCGATCCCGCCACCGCCTCCACACCAACAGCAGCAACAGCC ACCACCGCAGCAGCCACCGCAGCAGCCGCCACCGCATCAGCCGCCGCCATCCACAGCCGCATCAGCAGCA GCAGCCGCCGCCGCCGCAGGACTCTTCCAAGCCCGTCGTTGCTCAGGGACCCGGCCCCGCTCCCGGAGTAGG CAGCGCACCACCAGCCTCCAGCTCGGCCCCGCCACCCCACCTCCACCAACCTCGGGGGCCCCGCCAGGGTCCGGGCC CGGGGTCCCTACCACACCTCCTCAGGCCGGAGGCCCGCCGCCCCCCGCGCCAGTCCCGGGCCCGGGTCCAGG GCCTAAGCAGGGCCCAGGTCCGGGTGGTCCCAAAGGCGGCAAAATGCCTGGCGGGCCGAAGCCAGGTGGCGGCCC CTCGGACTCGGAGGGGTTTAAAGCCAATTTGTCTCTTTGAGGAGGCCTGGAGAGAAAACTTACACACAGCGATG TCGGTTGTTTGTTGGGAATCTACCTGCTGATATCACGGAGGATGAATTCAAAAGACTATTTGCTAAATATGGAGA ACCAGGAGAAGTTTTTATCAACAAAGGCAAAGGATTCGGATTTATTAAGCTTGAATCTAGAGCTTTGGCTGAAAT TGCCAAAGCCGAACTGGATGATACACCCATGAGAGGTAGACAGCTTCGAGTTCGCTTTGCCACACATGCTGCTGC CCTTTCTGTTCGTAATCTTTCACCTTATGTTTCCAATGAACTGTTGGAAGAAGCCTTTAGCCAATTTGGTCCTAT TGAAAGGGCTGTTGTAATAGTGGATGATCGTGGAAGATCTACAGGGAAAGGCATTGTTGAATTTGCTTCTAAGCC AGCAGCAAGAAAGGCATTTGAACGATGCAGTGAAGGTGTTTTCTTACTGACGACAACTCCTCGTCCAGTCATTGT GGAACCACTTGAACAACTAGATGATGAAGATGGTCTTCCTGAAAAACTTGCCCAGAAGAATCCAATGTATCAAAA GGAGAGAGAAACCCCTCCTCGTTTTGCCCAGCATGGCACGTTTGAGTACGAATATTCTCAGCGATGGAAGTCTTT GGATGAAATGGAAAAACAGCAAAGGGAACAAGTTGAAAAAAACATGAAAAGATGCAAAAGACAAATTGGAAAGTGA AATGGAAGATGCCTATCATGAACATCAGGCAAATCTTTTGCGCCAAGATCTGATGAGACGACAGGAAGAATTAAG ACGCATGGAAGAACTTCACAATCAAGAAATGCAGAAACGTAAAGAAATGCAATTGAGGCAAGAGGAGGAACGACG TAGAAGAGAGGAAGATGATGATTCGTCAACGTGAGATGGAAGAACAAATGAGGCGCCAAAGAGAGAAAGTTA CAGCCGAATGGGCTACATGGATCCACGGGAAAGAGACATGCGAATGGGTGGCGGAGGAGCAATGAACATGGGAGA TCCCTATGGTTCAGGAGGCCAGAAATTTCCACCTCTAGGAGGTGGTGGTGGCATAGGTTATGAAGCTAATCCTGG CGTTCCACCAGCAACCATGAGTGGTTCCATGATGGGAAGTGACATGCGTACTGAGCGCTTTGGGCAGGGAGGTGC  $\tt GGGGCCTGTGGGTGGACAGGGTCCTAGAGGAATGGGGCCTGGAACTCCAGCAGGATATGGTAGAGGGAGAGAAGA$ GTACGAAGGCCCAAACAAAAAACCCCGATTT<u>TAG</u>ATGTGATATTTAGGCTTTCATTCCAGTTTGTTTTTTT TGTTTAGATACCAATCTTTAAATTCTTGCATTTTAGTAAGAAAGCTATCTTTTATGGATGTTAGCAGTTTATT GACCTAATATTTGTAAATGGTCTGTTTGGGCAGGTAAAATTATGTAATGCAGTGTTTGGAACAGGAGAATTTTTT TTTCCTTTTTATTTCTTTATTTTTTTTTTTTTTTTACTGTATAATGTCCCTCAAGTTTATGGCAGTGTACCTTGTGCC GATCTTCAACTTTGCCATTCATGCTTCTATGCATATTAGGCTACGTATTCCACATTGAAAGCATGAGAGTGTCTA GGCCTTTGAATGGCATATGCCATTTCTGGGAAATGCATCTGGAGGCTAAGTATTGCTTTCTACAAATAATTGCCC CTAAGTATTTTTTAAATGGTTATGTAAGCAAAGCTGAACTGTAAATCTTCAGGAATATGTATTAAGATTGTGGAA TGGGTGTAAGACAATTGGTAGGGGGTGAAAGTGGGTTTGATTAAATGGATCTTTTATGGCCCTATGATCTATCCT TTACTTGAAAGCTTTTGAAAAGTGGAAAGGTCATTTTGTTGCATTTCCCCATTTCTTGTTTTTAAAAGACCAACA AATCTCAAGCCCTATAAATGGCTTGTATTGAACTTTTACATTTGAATTAAAGATGTTAAACATGAAAAAAA

### 259/2682 FIGURE 239

MSRDRFRSRGGGGGFHRRGGGGGRGGLHDFRSPPPGMGLNQNRGPMGPGPGQSGPKPPIPPPPHQQQQQPPPQ
QPPPQQPPPHQPPHPQPHQQQQPPPPPQDSSKPVVAQGPGPAPGVGSAPPASSSAPPATPPTSGAPPGSGPGPT
PTPPPAVTSAPPGAPPPTPPSSGVPTTPPQAGGPPPPPAAVPGPGPGPKQGPGPGGRKMPGGPKPGGPGLS
TPGGHPKPPHRGGGEPRGGRQHHPPYHQQHHQGPPPGGPGGRSEEKISDSEGFKANLSLLRRPGEKTYTQRCRLF
VGNLPADITEDEFKRLFAKYGEPGEVFINKGKGFGFIKLESRALAEIAKAELDDTPMRGRQLRVRFATHAAALSV
RNLSPYVSNELLEEAFSQFGPIERAVVIVDDRGRSTGKGIVEFASKPAARKAFERCSEGVFLLTTTPRPVIVEPL
EQLDDEDGLPEKLAQKNPMYQKERETPPRFAQHGTFEYEYSQRWKSLDEMEKQQREQVEKNMKDAKDKLESEMED
AYHEHQANLLRQDLMRRQEELRRMEELHNQEMQKRKEMQLRQEEERRRREEEMMIRQREMEEQMRRQREESYSRM
GYMDPRERDMRMGGGGAMNMGDPYGSGGQKFPPLGGGGGIGYEANPGVPPATMSGSMMGSDMRTERFGQGGAGPV
GGQGPRGMGPGTPAGYGRGREEYEGPNKKPRF

GCCCGTCCCGCCCGCCCGCCAGCCATGAGCTCCACGCAGTTCAACAAGGGCCCCTCGTACGGGCTGTCGGCC GAGGTCAAGAACCGGCTCCTGTCCAAATATGACCCCCAGAAGGAGGCAGAGCTCCGCACCTGGATCGAGGGACTC ACCGGCCTCTCCATCGGCCCCGACTTCCAGAAGGGCCTGAAGGATGGAACTATCTTATGCACACTCATGAACAAG CTACAGCCGGGCTCCGTCCCCAAGATCAACCGCTCCATGCAGAACTGGCACCAGCTAGAAAACCTGTCCAACTTC ATCAAGGCCATGGTCAGCTACGGCATGAACCCTGTGGACCTGTTCGAGGCCAACGACCTGTTTGAGAGTGGGAAC ATGACGCAGGTGCAGGTGTCTCTTCTCGCCCTGGCGGGAAGGCCAAGACTAAGGGGCTGCAGAGCGGGGTGGAC ATTGGCGTCAAGTACTCGGAGAAGCAGGAGCGGAATTTCGACGATGCCACCATGAAGGCTGGCCAGTGCGTCATC GGGCTGCAGATGGGCACCAACAAATGCGCCAGCCAGTCGGGCATGACTGCCTACGGCACGAGAAGGCATCTCTAT GACCCCAAGAACCATATCCTGCCCCCCATGGACCACTCGACCATCAGCCTCCAGATGGGCACGAACAAGTGCGCC AGCCAGGTGGGCATGACGGCTCCCGGGGACCCGGCGCACATCTATGATACCAAGCTGGGAACCGACAAGTGTGAC AACTCCTCCATGTCCCTGCAGATGGGCTACACGCAGGGCCCAACCAGAGCGGCCAGGTCTTCGGCCTGGGCCGG CAGATATATGACCCCAAGTACTGCCCGCAAGGCACAGTGGCCGATGGGGCTCCCTCGGGCACCGGCGACTGCCCG  $\texttt{GACCCGGGGGGAGGTCCCTGAATATCCCCCTTACTACCAGGAGGAGGCCGGCTAC} \underline{\textbf{TGA}} \underline{\textbf{GGCTCCCAGCACGCTCTC}}$ TTCAGTGCTGCCAGTCAACCAAGGGTCTGTGAGTGTCAGCGTGGGATCAGGCAGCAGAGCTTTTTTCCCCTTTGC CTTGATCCTTCGCAAGGCTGAGCCACTGGGCTGTGGGGGAAGGGGTCAAGGCCATATCCCAATACGTGTAGGGCG TTCTGGTTGCCTCGCCTCTTCCCCCTTTTGTCAGCTGAGCAGTTTGTGGTTTCTATGCCCGCAAGTTTCAGGAAG TATTCACAAAAGAAAAATACATTTTTTCCCCCAGGGGTGGGGCAAGGACAGTGGAGAGAGTGCTAGGAAATGAGT CCCCTGGGAAAGGGGACCGGGCCGTGATGTTAAATATCTCCGGCTCCCAAGTGACTGGATTTGCCTAGGACCTTC AGATCAACAGACTTCAGACCTCAGACCTGCCCCGGGGCCAGGTGGAGAAAGTGAGGGCCGTACAAGGAAGTGAA TTTTTTTCAGTTGTGGTTGTTGCCCAGGCTGGAGTGCAGTGGCGCCATCTTGGCTCACTGCACCTCCACCTTCCG GGCTCAAGCGATTCTCCAGCCTCAGCCTCCTGAGTAGCTAGGACTGCAGGTGCTCCACCACGCCCGGCTAATTTT TGTATTTTTAGTAGAGATGGGGTTTCCCCATGTTGGCCAGGCTGGTCTCGAACTCCTGGCCTCAGGTGTGATCCG CCCGCCTCCGCCTCCCCAAGCGCTGAGATTACAGGTGTGAGCCACCGTGCCCAGGCCCTCAGTAGGTTTTAAGGA GTCCCCAGCCTCCTCCTCTGGGCCCGACCAGCTTATACTGCTCCATCTTCCCCGGCCACATGCCCCGCCAAG TACTGCACAGGGACCCCCCACCCAGGGGCCCTGCTCCGTGAGATAATGTGAAATACGACTGTGGACCAAACGCAA TAAAACCTTTGTTTGTAGGAAG

# 261/2682 FIGURE 241

MSSTQFNKGPSYGLSAEVKNRLLSKYDPQKEAELRTWIEGLTGLSIGPDFQKGLKDGTILCTLMNKLQPGSVPKI NRSMQNWHQLENLSNFIKAMVSYGMNPVDLFEANDLFESGNMTQVQVSLLALAGKAKTKGLQSGVDIGVKYSEKQ ERNFDDATMKAGQCVIGLQMGTNKCASQSGMTAYGTRRHLYDPKNHILPPMDHSTISLQMGTNKCASQVGMTAPG TRRHIYDTKLGTDKCDNSSMSLQMGYTQGANQSGQVFGLGRQIYDPKYCPQGTVADGAPSGTGDCPDPGEVPEYP PYYOEEAGY

ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC AGTCAAGCAAAATTATTCAGCACCAGTTCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCTATTTTAAG GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTTGGTGCTTTTC TTCTATCCTTTGGATTTCACCTTTGTGTGTCCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTCAC GATGTGAACTGTGAAGTTGTCGCAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCCTGGATAAATACACCAAGA AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTCAGACTTAACTAAGCAGATTTCCCGAGACTACGGT GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTTG AGCGTCAACGATCTCCCAGTGGGCCGAAGCGTGGAAGAAACCCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA ACACATGGAGAAGTCTGCCCAGCGAACTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA  ${\tt GAGTACTTTCAGAAGGTAAATCAG} \underline{{\tt TAG}} {\tt ATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT}$ TGAAACCTGCTTTTATCATTTTCAAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTCATAAGT ATTACTCTAAATGTTTTGTTTTTTGTAATTCTGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG TTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCTT AGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACAC ACATTGAAAGCTTCTGATCAACGGTCCTGAAATTTTCATCTTGAATGTCTTTGTATTAAACTGAATTTTCTTTTA TTATGTAGTCATTTTACTTATTTTATTCATTAGCTAACTTTGTCTATGTATATTTCTAGATATTGATTAGTGTAA TCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATATTATTTTCTTTGCTGAAGTATTC 

# 263/2682 FIGURE 243

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRTSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTEIVAFSDKANEFHDVNCEVVAVSVDSHFSHLAWINTPRKN GGLGHMNIALLSDLTKQISRDYGVLLEGSGLALRGLFIIDPNGVIKHLSVNDLPVGRSVEETLRLVKAFQYVETH GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

GCCCAGTTCCGTGTCCCG<u>ATC</u>CCCAGCGCCACGCAGCGCAAGAGTCAGGAGAAGCCGCGGGAGATCATGGACGCG GCGGAAGATTATGCTAAAGAGAGATATGGAATATCTTCAATGATACAATCACAAGAAAAACCAGATCGAGTTTTG GTTCGGGTTAGAGACTTGACAATACAAAAAGCTGATGAAGTTGTTTGGGTACGTGCAAGAGTTCATACAAGCAGA GCTAAAGGGAAACAGTGCTTCTTAGTCCTACGTCAGCAGCAGTTTAATGTCCAGGCTCTTGTGGCGGTGGGAGAC CATGCAAGCAAGCAGATGGTTAAATTTGCTGCCAACATCAACAAAGAGAGCATTGTGGATGTAGAAGGTGTTGTG AGAAAAGTGAATCAGAAAATTGGAAGCTGTACACAGCAAGACGTTGAGTTACATGTTCAGAAGATTTATGTGATC AGAGCTACTGTTAACCAGGATACAAGATTAGACAACAGAGTCATTGATCTTAGGACATCAACTAGTCAGGCAGTC CCTAAAATTATTTCAGCTGCCAGTGAAGGAGGAGCCAATGTTTTTACTGTGTCATATTTTAAAAATAATGCATAC CTGGCTCAGTCCCCACAGCTATATAAGCAAATGTGCATTTGTGCTGATTTTGAGAAGGTTTTCTCTATTGGACCA GTATTCAGAGCGGAAGACTCTAATACCCATAGACATCTAACTGAGTTTGTTGGTTTGGACATTGAAATGGCTTTT AATTACCATTACCACGAAGTTATGGAAGAAATTGCTGACACCATGGTACAAATATTCAAAGGACTTCAAGAAAGG TTTCAGACTGAAATTCAAACAGTGAATAAACAGTTCCCATGTGAGCCATTCAAATTTTTGGAGCCAACTCTAAGA CTAGAATATTGTGAAGCATTGGCTATGCTTAGGGAAGCTGGAGTCGAAATGGGAGATGAAGACGATCTGAGCACA CCAAATGAAAAGCTGTTGGGTCATTTGGTAAAGGAAAAGTATGATACAGATTTTTATATTCTTGATAAATATCCA TTGGCTGTAAGACCTTTCTATACCATGCCTGACCCAAGAATCCCAAACAGTCCAAGTCTTACGATATGTTCATG ATTGGATTGGAACGAGTTACTATGCTGTTTCTGGGATTGCATAATGTTCGTCAGACCTCCATGTTCCCTCGTGAT  $\tt CCCAAACGACTCACTCCT{\color{red}{\textbf{TAA}}} {\color{blue}{\textbf{ATTCACACTTTGCCACTTAACTCCAGTGTGGATGACAGAGCGAGACCCTGCCTC}}$ ATTCTTTTCAGTAACCTGCTAGTGCACAGGCTGTACTTTAGGTACTTAAAATATGCACTAGAATAAATTTGCAAG GCCCTAAAATATCACTGTTATTTTTGGAGTAATTCAGTATAGGTTCGTTTAAAAGAGATTTTTATAACTTCAGAC ATGCATCAGTAGGAAATAACTTGAGAAATTCATATGGTTATGTTACAAATTCATATTCTGTTACTACAGTAAACG TAGATTTTCAGTATTTGAACTTATTTTTTTAAATTCTGTCATTGAGATAAGAATAATTCAGGTAGCATCTGAAAT TTTAATGAATGTATAATTGGCATATCATGGAAAATTAACCAGAAAGTATCAGTTCTTAAAAGTTATGCCTAGAAA TTATGTAAAGCTAAACTACTGGTTAGAAAGTATTCAGTGTAATATTGTATTAATTTGTTAAAATTCTAAACTTGAA TTTCAATAAAATTTTAAAGCT

## 265/2682 FIGURE 245

MPSATQRKSQEKPREIMDAAEDYAKERYGISSMIQSQEKPDRVLVRVRDLTIQKADEVVWVRARVHTSRAKGKQC FLVLRQQQFNVQALVAVGDHASKQMVKFAANINKESIVDVEGVVRKVNQKIGSCTQQDVELHVQKIYVISLAEPR LPLQLDDAVRPEQEGEEEGRATVNQDTRLDNRVIDLRTSTSQAVFRLQSGICHLFRETLINKGFVEIQTPKIISA ASEGGANVFTVSYFKNNAYLAQSPQLYKQMCICADFEKVFSIGPVFRAEDSNTHRHLTEFVGLDIEMAFNYHYHE VMEEIADTMVQIFKGLQERFQTEIQTVNKQFPCEPFKFLEPTLRLEYCEALAMLREAGVEMGDEDDLSTPNEKLL GHLVKEKYDTDFYILDKYPLAVRPFYTMPDPRNPKQSKSYDMFMRGEEILSGAQRIHDPQLLTERALHHGNDLEK IKAYIDSFRFGAPPHAGGGIGLERVTMLFLGLHNVRQTSMFPRDPKRLTP

ACTTGGCCTTACACTCCGCTCGGCTCACCATGTGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG CCCCGACCCCGGCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC TCCCGGAGCCCGCAGCGGCCCCTGCCGGGCGCCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTCT  $\tt CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTCGCGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA$ CCCGACTCCAGAGCCTCGACCTGTCTCCTGTTTTGTCTCCCCTTAGTCCGGCGCCAGCTGCCAGTCGAGG AACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG GTGTGCCGGCGCCCCTGCCTCCAGAGGACGCCCCTAACGCCGCATCCCTGGCGCCCCACCCCTGTGTCCCCCGTCC TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCCGG CCGCCTTCTAACTGTGACTCCCCGCACTCCCCAAAAAGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTG GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCC GGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCCAGCTGGGCTAGGC CCTAGGTGATGGAGATGTGTACGTAATATTTATTTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA TGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGGACTGGTGGAAGCAGGACACCTGGAACTGCGGCAAAGTAGGA GAAGAAATGGGGAGGACTCGGGTGGGGGAGGACGTCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAG ATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCCTTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGC TGTCACGGAGCGACTGTCGAGATCGCCTAGTATGTTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

# 267/2682 FIGURE 247

 ${\tt MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR\\SGHSRCALPWSHWGTTRLQSLDLTCLLFCLPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPPED\\APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF}$ 

### 268/2682 FIGURE 248A

 $\tt CCGCCGCCGGCAGCTGTGCTTACCTGTCGGCGGGGCTCCTGTCCCGGCTCGGCGCAGCCTTCAACTTGG$ ACACTCGGGAGGACAACGTGATCCGGAAATATGGAGACCCCGGGAGCCTCTTCGGCTTCTCGCTGGCCATGCACT GGCAACTGCAGCCCGAGGACAAGCGGCTGTTGCTCGTGGGGGCCCCGCGCGGAGAAGCGCTTCCACTGCAGAGAG CCAACAGAACGGGAGGGCTGTACAGCTGCGACATCACCGCCCGGGGGCCATGCACGCGGATCGAGTTTGATAACG ATGCTGACCCCACGTCAGAAAGCAAGGAAGATCAGTGGATGGGGGTCACCGTCCAGAGCCAAGGTCCAGGGGGCA AGGTCGTGACATGTGCTCACCGATATGAAAAAAGGCAGCATGTTAATACGAAGCAGGAATCCCGAGACATCTTTG GGCGATTGAGAGGCCATGAGAAATTTGGCTCTTGCCAGCAAGGTGTAGCAGCTACTTTTACTAAAGACTTTCATT ACATTGTATTTGGAGCCCCGGGTACTTATAACTGGAAAGGGATTGTTCGTGTAGAGCAAAAGAATAACACTTTTT TTGACATGAACATCTTTGAAGATGGGCCTTATGAAGTTGGTGGAGAGACTGAGCATGATGAAAGTCTCGTTCCTG TTCCTGCTAACAGTTACTTAGGTTTTTCTTTGGACTCAGGGAAAGGTATTGTTTCTAAAGATGAGATCACTTTTG TATCTGGTGCTCCCAGAGCCAATCACAGTGGAGCCGTGGTTTTGCTGAAGAGAGACATGAAGTCTGCACATCTCC TCCCTGAGCACATATTCGATGGAGAAGGTCTGGCCTCTTCATTTGGCTATGATGTGGCGGTGGTGGACCTCAACA AGGATGGGTGGCAAGATATAGTTATTGGAGCCCCACAGTATTTTGATAGAGATGGAGAAGTTGGAGGTGCAGTGT ATGTCTACATGAACCAGCAAGGCAGATGGAATAATGTGAAGCCAATTCGTCTTAATGGAACCAAAGATTCTATGT TTGGCATTGCAGTAAAAAATATTGGAGATATTAATCAAGATGGCTACCCAGATATTGCAGTTGGAGCTCCGTATG GTATATCACCTTATTTTGGATATTCAATTGCTGGAAACATGGACCTTGATCGAAATTCCTACCCTGATGTTGCTG TTGGTTCCCTCTCAGATTCAGTAACTATTTTCAGATCCCGGCCTGTGATTAATATTCAGAAAACCATCACAGTAA CTCCTAACAGAATTGACCTCCGCCAGAAAACAGCGTGTGGGGCGCCTAGTGGGATATGCCTCCAGGTTAAATCCT GTTTTGAATATACTGCTAACCCCGCTGGTTATAATCCTTCAATATCAATTGTGGGCACACTTGAAGCTGAAAAAG AAAGAAGAAAATCTGGGCTATCCTCAAGAGTTCAGTTTCGAAACCAAGGTTCTGAGCCCAAATATACTCAAGAAC TAACTCTGAAGAGGCAGAAACAGAAAGTGTGCATGGAGGAAACCCTGTGGCTACAGGATAATATCAGAGATAAAC TGCGTCCCATTCCCATAACTGCCTCAGTGGAGATCCAAGAGCCAAGCTCTCGTAGGCGAGTGAATTCACTTCCAG AAGTTCTTCCAATTCTGAATTCAGATGAACCCAAGACAGCTCATATTGATGTTCACTTCTTAAAAGAGGGATGTG GAGACGACAATGTATGTAACAGCAACCTTAAACTAGAATATAAATTTTGCACCCGAGAAGGAAATCAAGACAAAT TTTCTTATTTACCAATTCAAAAAGGTGTACCAGAACTAGTTCTAAAAGATCAGAAGGATATTGCTTTAGAAATAA CAGTGACAAACAGCCCTTCCAACCCAAGGAATCCCACAAAAGATGGCGATGACGCCCATGAGGCTAAACTGATTG CAACGTTTCCAGACACTTTAACCTATTCTGCATATAGAGAACTGAGGGCTTTCCCTGAGAAACAGTTGAGTTGTG TTGCCAACCAGAATGGCTCGCAAGCTGACTGTGAGCTCGGAAATCCTTTTAAAAGAAATTCAAATGTCACTTTTT ATTTGGTTTTAAGTACAACTGAAGTCACCTTTGACACCCCATATCTGGATATTAATCTGAAGTTAGAAACAACAA GCAATCAAGATAATTTGGCTCCAATTACAGCTAAAGCAAAAGTGGTTATTGAACTGCTTTTATCGGTCTCGGGAG TTGCTAAACCTTCCCAGGTGTATTTTGGAGGTACAGTTGTTGGCGAGCAAGCTATGAAATCTGAAGATGAAGTGG GAAGTTTAATAGAGTATGAATTCAGGGTAATAAACTTAGGTAAACCTCTTACAAACCTCGGCACAGCAACCTTGA ACATTCAGTGGCCAAAAGAAATTAGCAATGGGAAATGGTTGCTTTATTTGGTGAAAGTAGAATCCAAAGGATTGG ACTGTAGCGTGAACGTGAACTGTGGAACATCAGATGCCCGCTGCGGGGGCTGGACAGCAAGGCGTCTCTTATTT TGCGCTCGAGGTTATGGAACAGCACATTTCTAGAGGAATATTCCAAACTGAACTACTTGGACATTCTCATGCGAG CCTTCATTGATGTGACTGCTGCCGGAAAATATCAGGCTGCCAAATGCAGGCACTCAGGTTCGAGTGACTGTGT TTCCCTCAAAGACTGTAGCTCAGTATTCGGGAGTACCTTGGTGGATCATCCTAGTGGCTATTCTCGCTGGGATCT  ${\tt CCACATATCACAAGGCTGAGATCCATGCTCAGCCATCTGATAAAGAGAGGCTTACTTCTGATGCA{\tt TAG}{\tt TATTGAT}$ CTACTTCTGTAATTGTGTGGATTCTTTAAACGCTCTAGGTACGATGACAGTGTTCCCCGATACCATGCTGTAAGG 

### 269/2682 FIGURE 248B

CAACTCAGAAATTCAATTTGGATTTAAAAGCCTGCTCAATCCCTGAGGACTGATTTCAGAGTGACTACACACAGT ACGAACCTACAGTTTTAACTGTGGATATTGTTACGTAGCCTAAGGCTCCTGTTTTGCACAGCCAAATTTAAAACT GTTGGAATGGATTTTCTTTAACTGCCGTAATTTAACTTTCTGGGTTGCCTTTGTTTTTGGCGTGGCTGACTTAC ATCATGTGTTGGGGAAGGGCCTGCCCAGTTGCACTCAGGTGACATCCTCCAGATAGTGTAGCTGAGGAGGCACCT ACACTCACCTGCACTAACAGAGTGGCCGTCCTAACCTCGGGCCTGCTGCGCAGACGTCCATCACGTTAGCTGTCC CACATCACAAGACTATGCCATTGGGGTAGTTGTGTTTCAACGGAAAGTGCTGTCTTAAACTAAATGTGCAATAGA AGGTGATGTTGCCATCCTACCGTCTTTTCCTGTTTCCTAGCTGTGAATACCTGCTCACGTCAAATGCATACAA GTTTCATTCTCCCTTTCACTAAAACACACAGGTGCAACAGACTTGAATGCTAGTTATACTTATTTTGTATATGGT ATTTATTTTTTTTTTTTTTACAAACCATTTTGTTATTGACTAACAGGCCAAAGAGTCTCCAGTTTACCCTTCAG GTTGGTTTAATCAATCAGAATTAGAATTAGAGCATGGGAGGGTCATCACTATGACCTAAATTATTTACTGCAAAA AGAAAATCTTTATAAATGTACCAGAGAGAGTTGTTTTAATAACTTATCTATAAACTATAACCTCTCCTTCATGAC AGCCTCCACCCCACAACCCAAAAGGTTTAAGAAATAGAATTATAACTGTAAAGATGTTTATTTCAGGCATTGGAT ATTTTTTACTTTAGAAGCCTGCATAATGTTTCTGGATTTACATACTGTAACATTCAGGAATTCTTGGAGAAGATG GAATGCCTATGGAACTAGTGGATCCAAACTGATCCAGTATAAGACTACTGAATCTGCTACCAAAACAGTTAATCA GTGAGTCGAGTGTTCTATTTTTTTTTTTTTTTCCTCCCCTATCTGTATTCCCAAAAATTACTTTGGGGCTAATTT **AACAAGAACTTTAAATTGTGTTTTAATTGTAAAAATGGCAGGGGTGGAATTATTACTCTATACATTCAACAGAG** ACTGAATAGATATGAAAGCTGATTTTTTTTAATTACCATGCTTCACAATGTTAAGTTATATGGGGAGCAACAGCA AACAGGTGCTAATTTGTTTTGGATATAGTATAAGCAGTGTCTGTGTTTTGAAAGAATAGAACACAGTTTGTAGTG CCACTGTTGTTTTGGGGGGGGGCTTTTTTTCTTTTTCCGGAAAATCCTTAAACCTTAAGATACTAAGGACGTTGTT TTGGTTGTACTTGGAATTCTTAGTCACAAAATATATTTTGTTTACAAAAATTTCTGTAAAACAGGTTATAACAGT GTTTAAAGTCTCAGTTTCTTGCTTGGGGAACTTGTGTCCCTAATGTGTTAGATTGCTAGATTGCTAAGGAGCTGA TACTTGACAGTTTTTTAGACCTGTGTTACTAAAAAAAAGATGAATGTCGGAAAAGGGTGTTGGGAGGGTGGTCAA CAAAGAAACAAAGATGTTATGGTGTTTAGACTTATGGTTGTTAAAAATGTCATCTCAAGTCAAGTCACTGGTCTG TTTGCATTTGATACATTTTTGTACTAACTAGCATTGTAAAATTATTTCATGATTAGAAATTACCTGTGGATATTT GTATAAAAGTGTGAAATAAATTTTTTATAAAAGTGTTCATTGTTTCGTAACACAGCATTGTATATGTGAAGCAAA 

### 270/2682 FIGURE 249

MAAAGQLCLLYLSAGLLSRLGAAFNLDTREDNVIRKYGDPGSLFGFSLAMHWQLQPEDKRLLLVGAPRGEALPLQ
RANRTGGLYSCDITARGPCTRIEFDNDADPTSESKEDQWMGVTVQSQGPGGKVVTCAHRYEKRQHVNTKQESRDI
FGRCYVLSQNLRIEDDMDGGDWSFCDGRLRGHEKFGSCQQGVAATFTKDFHYIVFGAPGTYNWKGIVRVEQKNNT
FFDMNIFEDGPYEVGGETEHDESLVPVPANSYLGFSLDSGKGIVSKDEITFVSGAPRANHSGAVVLLKRDMKSAH
LLPEHIFDGEGLASSFGYDVAVVDLNKDGWQDIVIGAPQYFDRDGEVGGAVYVYMNQQGRWNNVKPIRLNGTKDS
MFGIAVKNIGDINQDGYPDIAVGAPYDDLGKVFIYHGSANGINTKPTQVLKGISPYFGYSIAGNMDLDRNSYPDV
AVGSLSDSVTIFRSRPVINIQKTITVTPNRIDLRQKTACGAPSGICLQVKSCFEYTANPAGYNPSISIVGTLEAE
KERRKSGLSSRVQFRNQGSEPKYTQELTLKRQKQKVCMEETLWLQDNIRDKLRPIPITASVEIQEPSSRRRVNSL
PEVLPILNSDEPKTAHIDVHFLKEGCGDDNVCNSNLKLEYKFCTREGNQDKFSYLPIQKGVPELVLKDQKDIALE
ITVTNSPSNPRNPTKDGDDAHEAKLIATFPDTLTYSAYRELRAFPEKQLSCVANQNGSQADCELGNPFKRNSNVT
FYLVLSTTEVTFDTPYLDINLKLETTSNQDNLAPITAKAKVVIELLLSVSGVAKPSQVYFGGTVVGEQAMKSEDE
VGSLIEYEFRVINLGKPLTNLGTATLNIQWPKEISNGKWLLYLVKVESKGLEKVTCEPQKEINSLNLTESHNSRK
KREITEKQIDDNRKFSLFAERKYQTLNCSVNVNCVNIRCPLRGLDSKASLILRSRLWNSTFLEEYSKLNYLDILM
RAFIDVTAAAENIRLPNAGTQVRVTVFPSKTVAQYSGVPWWIILVAILAGILMLALLVFILWKCGFFKRNKKDHY
DATYHKAEIHAQPSDKERLTSDA

### 271/2682 FIGURE 250

GGAAACTCCCGCAGACTTCTCTGTAGATCGCTGAGCGATACTTTCGGCAGCACCTCCTTGATTCTCAGTTTTGCT  ${\tt CAGGGCAGGATTCATCAAATTGAATATGCAATGGAAGCTGTTAAACAAGGTTCAGCCACAGTTGGTCTGAAATCA}$ AAAACTCATGCAGTTTTGGTTGCATTGAAAAGGGCGCAATCAGAGCTTGCAGCTCATCAGAAAAAAATTCTCCAT GTTGACAACCACATTGGTATCTCAATTGCGGGGCTTACTGCTGATGCTAGACTGTTATGTAATTTTATGCGTCAG GAGTGTTTGGATTCCAGATTTGTATTCGATAGACCACTGCCTGTGTCTCGTCTTGTATCTCTAATTGGAAGCAAG ACCCAGATACCAACACAACGATATGGCCGGAGACCATATGGTGTTGGTCTCCTTATTGCTGGTTATGATGATATG GGCCCTCACATTTTCCAAACCTGTCCATCTGCTAACTATTTTGACTGCAGAGCCATGTCCATTGGAGCCCGTTCC CAATCAGCTCGTACTTACTTGGAGAGACATATGTCTGAATTTATGGAGTGTAATTTAAATGAACTAGTTAAACAT GGTCTGCGTGCCTTAAGAGAGACGCTTCCTGCAGAACAGGACCTGACTACAAAGAATGTTTCCATTGGAATTGTT CAGAGAAAGGCACAGCCTGCTCAACCTGCTGATGAACCTGCAGAAAAGGCTGATGAACCAATGGAACATTAAGTG ATAAGCCAGTCTATATATGTATTATCAAATATGTAAGAATACAGGCACCACATACTGATGACAATAATCTATACT GCAACCTCACTGAAACCTATATAATGGAATACATTTTTCTTTGAAAGGGTCTGTATAATCATTTTCTAGAAGTAT GGGTATCTATACTAATGTTTTTTATATAAGAACATAGGTGTCTTTGTGGTTTTAAAGACAACTGTGAAATAAAAT 

### 272/2682 FIGURE 251

MFRNQYDNDVTVWSPQGRIHQIEYAMEAVKQGSATVGLKSKTHAVLVALKRAQSELAAHQKKILHVDNHIGISIA GLTADARLLCNFMRQECLDSRFVFDRPLPVSRLVSLIGSKTQIPTQRYGRRPYGVGLLIAGYDDMGPHIFQTCPS ANYFDCRAMSIGARSQSARTYLERHMSEFMECNLNELVKHGLRALRETLPAEQDLTTKNVSIGIVGKDLEFTIYD DDDVSPFLEGLEERPQRKAQPAQPADEPAEKADEPMEH

GGGGTGACGCAGGCGCAGCGCGGGCTGCGCGCGCTACTGCCCATCCCCGGTTGTCCCACTTTTGTTCGCCTCTCT TCGGTCCTCTACTCAAGAGCTCCGTCTCCGTCTCGCCCTCCTCGAAGTCCTCGTCGCGCCCCGCGACCCAGGTC GCCCTGAAATCTAGCCCGTCCGAGCGCGAGTCCAACGGCCGCGCCGCACCAAGGCCCCCTCAGACCGTGCCATG GGTGACAGTGATGACGAGTACGATCGAAGGCGCAGGGACAAGTTCAGAAGAGAGCGCAGCGACTACGACCGTTCC CGCGAGAGAGATGAAAGACGTCGAGGGGACGATTGGAATGACAGAGAGTGGGACCGTGGCCGTGAGCGCCGTAGT CGGGGTGAATATCGGGACTATGACCGGAATCGGCGAGAGCGCTTCTCGCCACCTCGCCACGAACTCAGCCCGCCA CAGAAGCGCATGAGGAGAGACTGGGATGAGCACAGCTCTGACCCATACCACAGTGGCTATGAGATGCCCTATGCT GGGGGGGGTGGGGCCCAACTTATGGCCCCCCTCAGCCCTGGGGCCACCCTGACGTCCACATCATGCAGCACCA TGTCCTGCCTATCCAGGCCAGGCTGGGCAGCATTGCAGAGATTGACCTGGGTGTGCCGCCGCCGTGATGAAGAC CTTCAAGGAGTTTCTCCTCTCCCTGGATGACTCGGTGGATGAGACGGAGGCCGTCAAGCGCTATAATGACTACAA GCTGGATTTCCGGAGGCAACAGATGCAGGATTTCTTCCTGGCGCACAAAGATGAGGAGTGGTTTCGGTCTAAGTA CCACCCAGATGAGGTGGGGAAGCGTCGGCAGGAGGCCCGGGGGGCCCTGCAAAACCGACTGAGGGTCTTCCTGTC CCTCATGGAGACTGGCTGGTTTGATAACCTTCTCCTGGACATAGACAAAGCTGATGCCATTGTCAAGATGCTGGA TGCAGCCGTGATTAAGATGGAAGGAGGCACGGAGAATGATCTCCGCATCCTGGAGCAGGAGGAGGAGGAGGAGGAGGAGCA GGCAGGAAAGCCTGGGGAGCCCAGCAAGAAAGAAGAAGGACGGGCTGGAGCAGGCCTAGGGGACGGGAGCGCAA AACCAACGACAAGGATGAGAAGAAGGAAGACGGCAAGCAGGCTGAGAATGACAATGATGATGACAAAACAAA GCGGAACCGGAAGCACAGTGGTGACGACAGCTTTGACGAGGGCAGCGTGTCAGAGTCTGAGTCGGAGTCAGAGAG GAAGCCCAAGGACGCCGCGGGCTGGAGTGCAAGCCGCGCCGCTGCATAAGACCTGCTCCCTCTTCATGCGCAA CATCGCGCCCAACATCTCCCGGGCCGAGATCATCTCCCTTTGTAAAAGGTACCCAGGCTTTATGCGGGTGGCGCT GATCTGTTGGAACCTGCAGAACATCCGTCTCCGGAGTGTGAGCCTGAGCCCTGGTGTGAACTGGGACCTGACCCGG CGCGTTCGCAACATCAACGGCATCACCCAGCACAAGCAGATTGTGCGCAACGACATCAAGCTGGCGGCCAAGCTG ATCCACACGCTGGATGACAGGACACAGCTTTGGGCCTCAGAACCAGGGACGCCTCCCCTGCCCACGAGCCTGCCC TCGCAAAACCCGATCTTGAAGAATATCACCGACTACCTGATCGAGGAAGTAAGCGCCGAGGAGGAGGAGCTGCTG GAGAAGTTGATTAAGGTCTTGGACAAGCTCCTCCTTTACCTGCGCATCGTGCATTCCTTGGATTATTACAACACC TGTGAGTACCCCAACGAGGACGAGATGCCCAATCGCTGTGGGATCATCCACGTTCGGGGGCCCATGCCACCCAAC CGCATCAGTCACGGGGAAGTGCTGGAGTGGCAGAAGACTTTTGAGGAGAAGCTCACGCCGTTGCTGAGTGTGCGG GAGTCACTCTCAGAGGAAGAGGCCCAGAAGATGGGGCGCAAAGACCCAGAGCAGGAAGTGGAGAAGTTCGTCACC TCCAACACGCAGGAACTGGGCAAGGATAAGTGGCTGTGTCCTCTCAGTGGCAAGAAATTCAAGGGTCCTGAGTTT GCGCGCAAACATATCTTCAACAAGCATGCAGAGAAAATTGAGGAAGTGAGAAAGGAAGTCGCGTTTTTTAACAAC CCCCAGGTTTGACCCAGGACTCCCCTACCCACACCAGACTCCCCAGGGCCTGATGCCCTATGGTCAGCCCCGG CCCCGATCTTGGGCTATGGAGCTGGTGCTGTCCGCCCTGCAGTCCCCACAGGAGGCCCTCCATACCCCCATGCC CCGTATGGTGCTGGTCGAGGGAACTATGATGCCTTCCGAGGCCAGGGAGGCTATCCTGGGAAACCTCGCAACAGG ATGGTTCGTGGAGACCCAAGGGCCATTGTGGAATATCGGGACCTGGATGCCCCAGACGATGTTGATTTCTTTTGA GCCGTCCCCGTTCCTCAGTCCTGTATCATCCATACTTGTACTACCTTGTCCTATGAAGCTCTGAGAATTTTTTTG 

CCAGCCTCCGCAGCCGCGCGCTCCACGCCCGCCCCGCGCCCAGGGCGAGTCGGGGTCGCCGCCTGCACGCTTCT CAGTGTTCCCCGCGCCCCGCATGTAACCCGGCCAGGCCCCCGCAACGGTGTCCCCTGCAGCTCCAGCCCCGGGCT GCACCCCCCGCCCGACACCAGCTCTCCAGCCTGCTCGTCCAGGATGCCGGGCCAAGGCCGAGATGCAGCTG ATGTCCCCGCTGCAGATCTCTGACCCGTTCGGATCCTTTCCTCACTCGCCCACCATGGACAACTACCCTAAGCTG GAGGAGATGATGCTGCTGAGCAACGGGGCTCCCCAGTTCCTCGGCGCCCCGGGGCCCCAGAGGGCAGCGGCAGC TTCAACCCTCAGGCGGACACGGGCGAGCAGCCCTACGAGCACCTGACCGCAGAGTCTTTTCCTGACATCTCTCTG AACAACGAGAAGGTGCTGGTGGAGACCAGTTACCCCAGCCAAACCACTCGACTGCCCCCCATCACCTATACTGGC CGCTTTTCCCTGGAGCCTGCACCCAACAGTGGCAACACCTTGTGGCCCGAGCCCCTCTTCAGCTTGGTCAGTGGC CTAGTGAGCATGACCAACCCACCGGCCTCCTCGTCCTCAGCACCATCTCCAGCGGCCTCCTCCGCCTCCGCCTCC ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCCTTCCCGGGCTCGGCAGGGACAGCGCTCCAGTAC CCGCCTCCTGCCTACCCTGCCGCCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTTTCCACAGCAG CAGGGGGATCTGGGCCTGGGCACCCCAGACCAGAAGCCCTTCCAGGGCCTGGAGAGCCGCACCCAGCAGCCTTCG CTAACCCCTCTGTCTACTATTAAGGCCTTTGCCACTCAGTCGGGCTCCCAGGACCTGAAGGCCCTCAATACCAGC CGCCCTTACGCTTGCCCAGTGGAGTCCTGTGATCGCCGCTTCTCCCGCTCCGACGACGACCTCACCCGCCACATCCGC ATCCACACAGGCCAGAAGCCCTTCCAGTGCCGCATCTGCATGCGCAACTTCAGCCGCAGCGACCACCTCACCACCA CACATCCGCACCCACACAGGCGAAAAGCCCTTCGCCTGCGACATCTGTGGAAGAAAGTTTGCCAGGAGCGATGAA CGCAAGAGGCATACCAAGATCCACTTGCGGCAGAAGGACAAGAAAGCAGACAAAAGTGTTGTGGCCTCTTCGGCC CCGGCCACCTCATACCCATCCCCTGTGCCCACCTCCTTCTCCTCTCCCGGCTCCTCGACCTACCCATCCCCT GTGCACAGTGGCTTCCCCTCCCGTCGGTGGCCACCACGTACTCCTCTGTTCCCCCTGCTTTCCCGGCCCAGGTC AGCAGCTTCCCTTCCTCAGCTGTCACCAACTCCTTCAGCGCCTCCACAGGGCTTTCGGACATGACAGCAACCTTT CTTAAAGGACAGGAGGAGATGGCCATAGGAGAGGGGTTCCTCTTAGGTCAGATGGAGGTTCTCAGAGCCA AGTCCTCCCTCTCTACTGGAGTGGAAGGTCTATTGGCCAACAATCCTTTCTGCCCACTTCCCCTTCCCCAATTAC TATTCCCTTTGACTTCAGCTGCCTGAAACAGCCATGTCCAAGTTCTTCACCTCTATCCAAAGAACTTGATTTGCA TGGATTTTGGATAAATCATTTCAGTATCATCTCCATCATATGCCTGACCCCTTGCTCCCTTCAATGCTAGAAAAT CGAGTTGGCAAAATGGGGTTTGGGCCCCTCAGAGCCCTGCCCTGCACCCTTGTACAGTGTCTGTGCCATGGATTT CGTTTTTCTTGGGGTACTCTTGATGTGAAGATAATTTGCATATTCTATTGTATTATTTGGAGTTAGGTCCTCACT TGGGGGAAAAAAAAAAAAAAGCCAAGCAAACCAATGGTGATCCTCTATTTTGTGATGATGCTGTGACAATAAG TTTGAACCTTTTTTTTGAAACAGCAGTCCCAGTATTCTCAGAGCATGTGTCAGAGTGTTGTTCCGTTAACCTTT  $\tt TTTTTTCTTCGTCCTTTTGGTTTAAAAAGTTTCACGTCTTGGTGCCCTTTTGTGTGATGCCCCTTGCTGATGGCTT$ GACATGTGCAATTGTGAGGGACATGCTCACCTCTAGCCTTAAGGGGGGCAGGGAGTGATGATTTGGGGGAGGCTT TGGGAGCAAAATAAGGAAGAGGGCTGAGCTGAGCTTCGGTTCTCCAGAATGTAAGAAAACAAAATCTAAAACAAA ATCTGAACTCTCAAAAGTCTATTTTTTTAACTGAAAATGTAAATTTATAAATATATTCAGGAGTTGGAATGTTGT AGTTACCTACTGAGTAGGCGGCGATTTTTGTATGTTATGAACATGCAGTTCATTATTTTTGTGGTTCTATTTTACT TTGTACTTGTGTTTGCTTAAACAAAGTGACTGTTTGGCTTATAAACACATTGAATGCGCTTTATTGCCCATGGGA TATGTGGTGTATATCCTTCCAAAAATTAAAACGAAAATAAAGTAGCTGCGATTGGG

### 275/2682 FIGURE 254

ATGGACCCCGCTTGTCCACTGTCCGCCAGACCTGCTGCTTCAATGTCCGCATCGCAACCACCGCCCTGGCC ATCTACCATGTGATCATGAGCGTCTTGTTGTTCATCGAGCACTCAGTAGAGGTGGCCCATGGCAAGGCGTCCTGC AAGCTCTCCCAGATGGGCTACCTCAGGATCGCTGACCTGATCTCCAGCTTCCTGCTCATCACCATGCTCTTCATC ATCAGCCTGAGCCTACTGATCGGCGTAGTCAAGAACCGGGAGAAGTACCTGCTGCCCTTCCTGTCCCTGCAAATC ATGGACTATCTCCTGTGCCTGCTCACCCTGCTGGGCTCCTACATTGAGCTGCCCGCCTACCTCAAGTTGGCCTCC CGGAGCCGTGCTAGCTCCTCCAAGTTCCCCCTGATGACGCTGCAGCTGCTGGACTTCTGCCTGAGCATCCTGACC CTCTGCAGCTCCTACATGGAAGTGCCCACCTATCTCAACTTCAAGTCCATGAACCACATGAATTACCTCCCCAGC CAGGAGGATATGCCTCATAACCAGTTCATCAAGATGATCATCTTTTCCCATCGCCTTCATCACTGTCCTTATC TTCAAGGTCTACATGTTCAAGTGCGTGTGGCGGTGCTACAGATTGATCAAGTGCATGAACTCGGTGGAGGAGAAG AGANACTCCAAGATGCTCCAGAAGGTGGTCCTGCCGTCCTACGAGGAAGCCCTGTCTTTGCCATCGAAGACCCCA GAGGGGGGCCCAGCACCACCCCATACTCAGAGGTG<u>TGA</u>CCCTCGCCAGGCCCCAGCCCCAGTGCTGGGAGGGGT GGAGCTGCCTCATAATCTGCTTTTTTGCTTTGGTGGCCCCTGTGGCCTGGGTGGGCCCTCCCGCCCCTCCCTGGC AGGACAATCTGCTTGTGTCTCCCTCGCTGGCCTGCTCCTCCTGCAGGGCCTGTGAGCTGCTCACAACTGGGTCAA CGCTTTAGGCTGAGTCACTCCTCGGGTCTCTCCATAATTCAGCCCAACAATGCTTGGTTTATTTCAATCAGCTCT GACACTTGTTTAGACGATTGGCCATTCTAAAGTTGGTGAGTTTGTCAAGCAACTATCGACTTGATCAGTTCAGCC ATGTAATCAATTTCTTCAAATAGCTTGCTTACATGATAATCAATTAGCCAACCATGAGTCATTTAGAATAGTGAT AAATAGAATACACAGAATAGTGATGAAATTCAATTTAAAAAATCACGTTAGCCTCCAAACCATTTAATTCAAATG AACCCATCAACTGGATGCCAACTCTGGCGAATGTAGGACCTCTGAGTGGCTGTATAATTGTTAATTCAAATGAAA TTCATTTAAACAGTTGACAAACTGTCATTCAACAATTAGCTCCAGGAAATAACAGTTATTTCATCATAAAACAGT CCCTTCAAACACACAATTGTTCTGCTGAAGAGTTGTCATCAACAATCCAATGCTCACCTATTCAGTTGCTCTGTG GTCAGTGTGGCTGCATAGCAGTGGATTCCATGAAAGGAGTCATTTTAGTGATGAGCTGCCAGTCCATTCCCAGGC CAGGCTGTCGCTGGCCATCCATTCAGTCGATTCAGTCATAGGCGAATCTGTTCTGCCCGAGGCTTGTGGTCAAGC AAAAATTCAGCCCTGAAATCAGGCACATCTGTTCGTTGGACTAAACCCACAGGTTAGTTCAGTCAAAGCAGGCAA CCCCTTGTGGGCACTGACCCTGCCACTGGGGTCATGGCGGTTGTGGCAGCTGGGGAGGTTTGGCCCCAACAGCC CTCCTGTGCCTGCTTCCCTGTGTGTCGGGGTCCTCCAGGGGAGCCGACGCAGAGGTGGAGGCCACGGAGGCAGGGT CTCTGGGGACTGTCGGGGGGTACAGAGGGAGAAGGCTCTGCAAGAGCTCCCTGGCAATACCCCCTTGTGTAATTG CTTTGTGTGCGACAGGGAGGAAGTTTCAATAAAGCAACAACAAGCTTCAAGGAATTC

## 277/2682 FIGURE 256

MDPRLSTVRQTCCCFNVRIATTALAIYHVIMSVLLFIEHSVEVAHGKASCKLSQMGYLRIADLISSFLLITMLFI ISLSLLIGVVKNREKYLLPFLSLQIMDYLLCLLTLLGSYIELPAYLKLASRSRASSSKFPLMTLQLLDFCLSILT LCSSYMEVPTYLNFKSMNHMNYLPSQEDMPHNQFIKMMIIFSIAFITVLIFKVYMFKCVWRCYRLIKCMNSVEEK RNSKMLQKVVLPSYEEALSLPSKTPEGGPAPPPYSEV

CACGAGGGAGCGCTAACGTCTTTCTGTCTCCCCGCGGTGGTGATGACGGTGAAAACTGAGGCTGCTAAGGGCACC CTCACTTACTCCAGGATGAGGGGCATGGTGGCAATTCTCATCGCTTTCATGAAGCAGAGGAGGATGGGTCTGAAC CAACCTCAGGAGCCTGAGCTTATGAATGCCAACCCTTCTCCTCCACCAAGTCCTTCTCAGCAAATCAACCTTGGC CCGTCGTCCAATCCTCATGCTAAACCATCTGACTTTCACTTCTTGAAAGTGATCGGAAAGGGCAGTTTTGGAAAG GTTCTTCTAGCAAGACACAAGGCAGAAGAAGTGTTCTATGCAGTCAAAGTTTTACAGAAGAAAGCAATCCTGAAA AAGAAAGAGGAGAAGCATATTATGTCGGAGCGGAATGTTCTGTTGAAGAATGTGAAGCACCCTTTCCTGGTGGGC CTTCACTTCTCTTTCCAGACTGCTGACAAATTGTACTTTGTCCTAGACTACATTAATGGTGGAGAGTTGTTCTAC CATCTCCAGAGGGAACGCTGCTTCCTGGAACCACGGGCTCGTTTCTATGCTGCTGAAATAGCCAGTGCCTTGGGC TACCTGCATTCACTGAACATCGTTTATAGAGACTTAAAACCAGAGAATATTTTGCTAGATTCACAGGGACACATT GTCCTTACTGATTTCGGACTCTGCAAGGAGAACATTGAACACAACAGCACAACATCCACCTTCTGTGGCACGCCG GAGTATCTCGCACCTGAGGTGCTTCATAAGCAGCCTTATGACAGGACTGTGGACTGGTGGTGCCTGGGAGCTGTC TTGTATGAGATGCTGTATGGCCTGCCGCCTTTTTATAGCCGAAACACAGCTGAAATGTACGACAACATTCTGAAC AAGCCTCTCCAGCTGAAACCAAATATTACAAATTCCGCAAGACACCTCCTGGAGGGCCTCCTGCAGAAGGACAGG GATCTCATTAATAAGAAGATTACTCCCCCTTTTAACCCAAATGTGAGTGGGCCCAACGAGCTACGGCACTTTGAC AAGGAAGCTGCCGAGGCTTTCCTAGGCTTTTCCTATGCGCCTCCCACGGACTCTTTCCTCCATCTTACAAGAGAATTTGCACATCTCTGGAAGCTTAGCAATCTTATTGCACACTGTTCGCTGGAATTTTTTGAA GAGCGTTAGAGTGCCGCCTTAGACGGAGGCAGGAGTTTCGTTAGAAAGCGGACCTGTTCTAAAAAAAGGTCTCCTG  ${\tt CAGATCTGTCTGGGCTGTGATGACGAATATTATGAAATGTGCCTTTTCTGAAGAGATTTGTGTTAGCTCCAAAGCT}$ TTTCCTATCGCAGTGTTTCAGTTCTTTATTTTCCCTTGTGGATATGCTGTGTGAACCGTCGTGTGAGTGTGGTAT GCCTGATCACAGATGGATTTTGTTATAAGCATCAATGTGACACTTGCAGGACACTACAACGTGGGACATTGTTTG TTTCTTCCATATTTGGAAGATAAATTTATGTGTAGACTTTTTTGTAAGATACGGTTAATAACTAAAATTTATTGA GGTTTTTATGGACCAATGCCCCAGTTGTCAGTCAGAGCCGTTGGTGTTTTTCATTGTTTAAAATGTCACCTGTAA GGTTATAACACTAGTATATTTAAACTTACAGGCTTATTTGTAATGTAAACCACCATTTTAATGTACTGTAATTAA 

### 279/2682 FIGURE 258

MTVKTEAAKGTLTYSRMRGMVAILIAFMKQRRMGLNDFIQKIANNSYACKHPEVQSILKISQPQEPELMNANPSP PPSPSQQINLGPSSNPHAKPSDFHFLKVIGKGSFGKVLLARHKAEEVFYAVKVLQKKAILKKKEEKHIMSERNVL LKNVKHPFLVGLHFSFQTADKLYFVLDYINGGELFYHLQRERCFLEPRARFYAAEIASALGYLHSLNIVYRDLKP ENILLDSQGHIVLTDFGLCKENIEHNSTTSTFCGTPEYLAPEVLHKQPYDRTVDWWCLGAVLYEMLYGLPPFYSR NTAEMYDNILNKPLQLKPNITNSARHLLEGLLQKDRTKRLGAKDDFMEIKSHVFFSLINWDDLINKKITPPFNPN VSGPNELRHFDPEFTEEPVPNSIGKSPDSVLVTASVKEAAEAFLGFSYAPPTDSFL

GGCCTGTTCTCGAGTCCGCGCTTTTCGTCACCGCCATGTCGGGAGGTGGTGATTCGTGGCCCCGCAGGGAACA ACGATTGCCGCATCTACGTGGGTAACTTACCTCCAGACATCCGAACCAAGGACATTGAGGACGTGTTCTACAAAT ACGGCGCTATCCGCGACATCGACCTCAAGAATCGCCGCGGGGGACCGCCCTTCGCCTTCGTTGAGTTCGAGGACC CGCGAGACGCGGAAGACGCGGTGTATGGTCGCGACGGCTATGATTACGATGGGTACCGTCTGCGGGTGGAGTTTC  $\tt CTCGAAGCGGCCGTGGAACAGGCCGAGGCGGCGGCGGGGGTGGAGGTGGCGGAGGTCCCCGAGGTCGCTATGGCC$ CCCCATCCAGGCGGTCTGAAAACAGAGTGGTTGTCTCTGGACTGCCTCCAAGTGGAAGTTGGCAGGATTTAAAGG ATCACATGCGTGAAGCAGGTGATGTATGTTATGCTGATGTTTACCGAGATGGCACTGGTGTCGTGGAGTTTGTAC GGAAAGAAGATATGACCTATGCAGTTCGAAAACTGGATAACACTAAGTTTAGATCTCATGAGGGAGAAACTGCCT ACATCCGGGTTAAAGTTGATGGGCCCAGAAGTCCAAGTTATGGAAGATCTCGATCTCGAAGCCGTAGTCGTAGCA GAAGCCGTAGCAGAAGCAACAGCAGGAGTCGCAGTTACTCCCCAAGGAGAAGCAGAGGATCACCACGCTATTCTC CCCGTCATAGCAGATCTCGCTCTCGTACATAAGATGATTGGTGACACTTTTTGTAGAACCCATGTTGTATACAGT TTTCCTTTATTCAGTACAATCTTTTCATTTTTAATTCAAACTGTTTTGTTCAGAATGGGCTAAAGTGTTGAATT GCATTCTTGTAATATCCCCTTGCTCCTAACATCTACATTCCCTTCGTGTCTTTGATAAATTGTATTTTAAGTGAT GTCATAGACAGGATTGTTTAAATTTAGTTAACTCCATACTCTTCAGACTGTGATATTGTGTAAATGTCTATCTGC CCTGGTTTGTGTGAACTGGGATGTTGGGGGGTGTTTGTGGTTATCTTACCTGGGGAAGTTCTTATGTTTATCTTGC TTTTCATGTGTCTTTCTGTAGACATATCTGAAGAGATGGATTAAGAATGCTTTGGATTAAGGATTGTGGAGCACA TTTCAATCATTTTAGGATTGTCAAAAGGAGGATTGAGGAGGATCAGATCAATAATGGAGGCAATGGTATGACTCC AAGTGCTATTGTCACAGATGAAATTGGCAGTATTGACCTTATACTAAAAGGCAGGGGTTAAAAAATGATTATATAC ATTTTCCTTAAAACACTTGCAAACATTTTATTCAGTTGTCTTTAGCTACAATTGCTTTGCTTTTAAACCTTGGC AATTGTGGCAAAATTATATTGCCCATTTTGTAGCAACTTATTTTGCTCCCTTCCCCCCATTTTTGTTTTAATAGG GACTAATGTGGGAAGAACTGGCTAATTTGTCACAGTGCTTAGTTACAACTGTTAATGTGTGACCTGCTGTTGGTG TACATGTGGGTACAGGGTGTTTTTAAATCCAACAAGATAGAGTATAATATCAATACTGCTAAATCTGCATGTCCT CTGTGTGACTGATAGAGCGTTGCTATTTCATTTTTTTAAGACAAAATGAAAGCAAAATATAGAGTTCCAATGTAT TGGTGTAGATAATCTAGTTGGGAATACTTTTAAGTCTCACCTTCCCCTTTAAACTAATATTCATAATTGGTTCAT ATGTTTAAAAGACTTTAATTTACAAATTAAATTGCAAATGGGAGCATTAGATTTAGTTTTAGACTTAGGTGGGTA GCAATGCCAGTAAACTTAAATTACGTAACTTCTTGCAACCACGAAACCTGTAATACGCTGTACAGTAACAAGTGT TGGCATTATCAGTTGAACTGTAAATACAAAATGCTTCTTCCAATTAGTCTCTATGATGATTAAGTTTCTAAAATT TATCTGAACACCATTCAGAAACTTGTTTTGGGGAATTTGATAGTTATTGATGTGCATCTGTTAAACTGATGACAG TGGTTATAAAGGTTTGGATTGGAGAGGGCTCACTGGATCCCAATCCTTGGAGCTGGATCATTGGATTCAAATCAT AATGTGGATAGGATAGGAGGATGAATTACCAGGATTCATGGAGCGGGATCAGATTACCAGGAACATAGGAGTGG TTCCTATTTTTGACGATTGGAGCCCTTAAGATGCACGATGGAATTGTGTTTTTGCGTTTTTTTGGTAAAAGGAGCAA AGCGAGGACCTGGAGATAAACGCTGGAGCAATCTCCTTGGAAGGATTCAGCACGAGTAGATGGTAAACATTTAAA GGGGAAAGGGGGGTTTGTTTAAAATAGTAAATCAGTAAGTCACTTCTAAATTTAAAGAAAACAAAATTGGAGTT AAAAAAA

## 281/2682 FIGURE 260

MSGGGVIRGPAGNNDCRIYVGNLPPDIRTKDIEDVFYKYGAIRDIDLKNRRGGPPFAFVEFEDPRDAEDAVYGRD GYDYDGYRLRVEFPRSGRGTGRGGGGGGGGAPRGRYGPPSRRSENRVVVSGLPPSGSWQDLKDHMREAGDVCYA DVYRDGTGVVEFVRKEDMTYAVRKLDNTKFRSHEGETAYIRVKVDGPRSPSYGRSRSRSRSRSRSRSRSRSRSRS YSPRRSRGSPRYSPRHSRSRST

TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC GGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAAACTTACTCGCTGTAA ACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTCAGTCC CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA CCAAGGGTCACTTGAAGAACAGGAGGAGGAGTTCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTAATGTGCAACT AGCCTGTGAGATTCAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTCAGAA GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACTTGGGGTATAGAACAGGCTATGCTTACAG GCATCCTCTCATTCGAGAGAGAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCCTT TGAAGACGATACAGTGCCACTCTCTCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAAAACAAGATGGCT GAACTCACCAAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAACACCTATCAAAATTGAAGATCCAAATCA GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC TTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCC AGAGAAAATCGAAGAAGTCCTGTCACCTGAAGGCTCCCCTTCAAAATCGCCATCCAAGAAAAAAGAAGAAATTCCG TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGATCAGATTG GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTTCAGATTCATCTCTCAT TTTATATGTCCAGAAATGGCTTTGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT CAGTGAGCAAGTGAGAATTTTTATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGAT TATTGACTATATTTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAAACTTCTAAGACAAGAA TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCATTTGGAATTTTATTCA CAGTATAAAATTTCCTCACCTGAAGTAACTTTGTTTGCCAAAAAAAGTTGTTTTAATAAACTATAATTTTTTGAAAA CTTCCTTTTTTATTAGTTTAGAAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTT **AGTTTAACTCTGGC** 

### 283/2682 FIGURE 262

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL
FGWAHLANTYISVRISKEQDHIIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG
ETLEEAFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFQKYKAFTYTVAASGGGGVNMGSHQKWKVGEIEFEGLM
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNSPNTYMKVN
VPEESRNGETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSQL
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSHLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS
PQNVPEKLEENHELFSKSFISMEVPVMVVNGKDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPE
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

ATATAACCGCGTGGCCCGCGCGCGCTTCCCTCCCGGCGCAGTCACCGGCGCGCTCTATGGCTGCGACTTCTCT AATGTCTGCTTTGGCTGCCCGGCTGCTGCAGCCCGCGCACAGCTGCTCCCTTCGCCTTCGCCTTTCCACCTCGC GGCAGTTCGAAATGAAGCTGTTGTCATTTCTGGAAGGAAACTGGCCCAGCAGATCAAGCAGGAAGTGCGGCAGGA GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGGTTGGCGAGAATCCTGCAAG TCACTCCTATGTCCTCAACAACACAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC TTCAATTTCAGAGGAAGAATTGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCTCCTTGT TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG CTTTCATGTAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCCATGTTACCGGCTACTCCATGGGGTGTGTG GGAAATAATCAAGCGAACTGGCATTCCAACCCTAGGGAAGAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG AATGCCCATTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCCCGGAGGTGATGCCACTGTTACAATATC TCATCGATATACTCCCAAAGAGCAGTTGAAGAAACATACAATTCTTGCAGATATTGTAATATCTGCTGCAGGTAT TCCTGTAACTGCCAAACCCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAAGCTGGGTATATCAC TCCAGTTCCTGGAGGTGTTGGCCCCATGACAGTGGCAATGCTAATGAAGAATACCATTATTGCTGCAAAAAAGGT GCTGAGGCTTGAAGAGCGAGAAGTGCTGAAGTCTAAAGAGCTTGGGGTAGCCACTAAT**TAA**CTACTGTGTCTTCT CAGTACCTCACCAGGAGCATTCCAGTATCATGCAGGGTCCTGTGATCTAGCCAGGAGCAGCCATTAACCTAGTG ATTAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTCGCCTT TTCTAGGATTGCATTTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC GAGCAGAAAAAATTAATTTATATATGTATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA AAAAAGAAAACTGCATGTTAATCATTTTCCTAAGCTGTCCTTTTGAGGCTTAGTCAGTTTATTGGGAAAATGTT AGGACTGAAAGGATTCTTTCTACATTATACATGTGTGTTGTCATATTTGGCTTTTGCTATATACTTTAACTTCA GTGATGTATGTATCCTGTTGACTTTTCCAGAAATTTTTTAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT 

## 285/2682 FIGURE 264

MSALAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVRQEVEEWVASGNKRPHLSVILVGENPAS
HSYVLNKTRAAAVVGINSETIMKPASISEEELLNLINKLNNDDNVDGLLVQLPLPEHIDERRICNAVSPDKDVDG
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQKAGYIT
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

### 286/2682 FIGURE 265

## 287/2682 FIGURE 266

MAKPCGVRLSGEARKQVEVFRQNLFQEAEEFLYRFLPQKIIYLNQLLQEDSLNVADLTSLRAPLDIPIPDPPPKD DEMETDKQEKKEVPKCGFLPGNEKVLSLLALVKPEVWTLKEKCILVITWIQHLIPKIEDGNDFGVAIQEKVLERV NAVKTKVEAFQTTISKYFSERGDAVAKASKETHVMDYRALVHERDEAAYGELRAMVLDLRAFYAELYHIISSNLE KIVTPKGEEKPSMY

### 288/2682 FIGURE 267

AGTCAAGATGGAGGAGTACGCGCGAGAGCCTTGCCCATGGCGAATTGTGGATGACTGTGGTGGGGGCCTTTACGAT GGGTACCATTGGTGGTGGTATCTTTCAAGCAATCAAAGGTTTTCGCAATTCTCCAGTGGGAGTAAACCACAGACT ACGAGGGAGTTTGACAGCTATTAAAACCAGGGCTCCACAGTTAGGAGGTAGCTTTGCAGTTTGGGGAGGGCTGTT TTCCATGATTGACTGTAGTATGGTTCAAGTCAGAGGAAAGGAAGATCCCTGGAACTCCATCACAAGTGGTGCCTT AACGGGAGCCATACTGGCAGCAAGAAATGGACCAGTGGCCATGGTTGGGTCAGCCGCAATGGGTGGCATTCTCCT AGCTTTAATTGAAGGAGCTGGTATCTTGTTGACAAGATTTGCCTCTGCACAGTTTCCCAATGGTCCTCAGTTTGC AGAAGACCCCTCCCAGTTGCCTTCAACTCAGTTACCTTCCTCACCTTTTGGAGACTATCGACAATATCAG**TAG**GA CTTCTTTCCTAGGATTTCTTTAACAGAACGAGTTGTGGTTCGAGAAGGATTTCAGAAGATCAAGTTACAGTCTGT TTTTAAAACCATAGGTGGGACAGCTATGGCCAATAGGCTATAAAGAGACATTTAGCACTTTTTTCTATTTAAAGG TGTTTAAATCGCTAAAGGAAAATACAGTAAGTGCTTGAAAGATGAAGGACCAAAAAGGCCAAAAAACAGTGAAATA TGATCATCTCTTGCGGACTTCTCTGCCTGGTTTTGTGTGTTCTGTTATTCAAACAATAAAAAGCTGGTGGAA CTTACTCTTTCTTTTAAGATAAGTTGTAGACTTCGATGTTTCATGCTCATGTACTTCAAATAATGCATGTTTTAT AGTTAGTCCCTCATCACTTGAAGTGACTTCTGAGAATTATGCAGAGTCAACATGGATCATTTCACAGTGAGATGC TTTATGGATTGAAGGATATGGTAAAATGTTTATAGTTTACTTTGAAAGTAAAATATACTATGTCTTGGTTTTGAG GATATTGGATACAAAACTCTCTTCCTTTAGGGCTACTGAGTCTTGATTCCTGATCATCAGAAATTTCACCAGAAA CAACTTGCTTCCAATATACCCAATTCTATATGAAGAATTCATGGAGGGTGTACTGGCACTGGAAGAGTTTAGTGT TTCTTGTATGCTTGAAAATAAAGTATGTACTGTTTTGAATGTGTTCCAAGTCCTCTGCATAAACGATGTATTTTG GGGTCTGGTTGGGCCTGGAAAATGGATGAGCACTTCAGAACAGGTCATTTTCCTGATATTGGAAGTGACATGTGG CCCTATAGGAGGCATGATGTTAGTTAATTACACATTTGCCTACATCTGTGGGAAAATGGAGAACAAAGCCATGTGG 

# 289/2682 FIGURE 268

 $\label{thm:meeyarepcpwrivddcggaftmgtigggifqaikgfrnspvgvnhrlrgsltaiktrapqlggsfavwgglfsmidcsmvqvrgkedpwnsitsgaltgailaarngpvamvgsaamggillaliegagilltrfasaqfpngpqfaedpsqlpsspfgdyrqvq$ 

GAGGTGCCCCAGCCGGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCCAGCGTCCG GTCACCACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGCAGCCGCCTGACGCACCTATCCCTG TCTCGACGGGCATCCGAATCCTCCCTGTCGTCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC AACGAGCAGTTTGCCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGCCACAGCCCCGTGCTTCGGAAC ATCACCAACTCCCAGGCGCCCGACGGCCGGAGGAAGAGCGAGGCGGGCAGTGGAGCTGCCAGCAGCTCTGGGGAA ACACATCCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGCAGGGAAGCCTTTGCCCAGAGACCCAGCTCG GCCCCGACCTGATGTGTCTCAGTCCTGACCGGAAGATGGAAGTGGAGGAGCTCAGCCCCCTGGCCCTAGGTCGC TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTTGTGGACATCCTAGAGAGTGACTTAAAG GATGATGATGCAGTTCCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGGAAAAGGAAGAG GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG CCCATCCTCAAGAGGCTGGAGCGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCGCGTCCTCCGCTCAAAATCACTGTGTCACGATGAG GACGGAAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG AACTTGCCCCTGGAACGCGACGCCGAGAGCTTCCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA GTCATCCTCATTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGCATGTGCCGTTTCATCAGGGAACGAGAC CGTGCTGTCAACGACTACCCCAGCCTCTACTACCCTGAGATGTATATCCTGAAAGGCGGCTACAAGGAGTTCTTC CCTCAGCACCCGAACTTCTGTGAACCCCAGGACTACCGGCCCATGAACCACGAGGCCTTCAAGGATGAGCTAAAG ACCTTCCGCCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGGGAGCTCTGTAGCCGGCTGCAGGACCAG TGAGGGGCCTGCCCAGTCCTGCTACCTCCCTTGCCTTTCGAGGCCTGAAGCCAGCTGCCCTATGGGCCTGCCGG CAGATTCCCCTGTGTCATCCCATCATTTTCCATATCCTGGTGCCCCCCACCCCTGGAAGAGCCCAGTCTGTTGAG TTAGTTAAGTTGGGTTAATACCAGCTTAAAGGCAGTATTTTGTGTCCTCCAGGAGCTTCTTGTTTCCTTGTTAGG CCCTGAGGATGGGTCAGAGCTAAACTCCTTCCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGCCA GGGCTGCCCCTAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCCTTTCTCTTTTCCCCTTTCCTGTCC CACCATACGAGCACCTCCAGCCTGAACAGAAGCTCTTACTCTTTCCTATTTCAGTGTTACCTGTGTGCTTGGTCT GTTTGACTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTTAGGTTCCCCTGTCAAATATCAGTTACCCACTC GGTCCCAGTTTTGTTGCCCCAGAAAGGGATGTTATTATCCTTGGGGGCTCCCAGGGCAAGGGTTAAGGCCTGAAT CATGAGCCTGCTGGAAGCCCAGCCCCTACTGCTGTGAACCCTGGGGCCTGACTGCTCAGAACTTGCTGCTGTCTT GTTGCGGATGGATGGAAGGTTGGATGGATGGCTGGATGGCCGTGGATGCCAGTGCCTTGCATAC CCAAACCAGGTGGGAGCGTTTTGTTGAGCATGACACCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGACAA AAATATTTACACTTAGGGTTTGGAGCTATTCAAGAGGAAATGTCACAGAAGCAGCTAAACCAAGGACTGAGCACC CTCTGGATTCTGAATCTCAAGATGGGGGCAGGGCTGTGCTTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCTTGG 

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## 291/2682 FIGURE 270

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS LSRRASESSLSSESSESSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMPVRLLGHSPVLR NITNSQAPDGRRKSEAGSGAASSSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGFVFKMPWK PTHPSSTHALAEWASRREAFAQRPSSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILESDL KDDDAVPPGMESLISAPLVKTLEKEEEKDLVMYSKCQRLFRSPSMPCSVIRPILKRLERPQDRDTPVQNKRRRSV TPPEEQQEAEEPKARVLRSKSLCHDEIENLLDSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVALLTGKFS NIVDKFVIVDCRYPYEYEGGHIKTAVNLPLERDAESFLLKSPIAPCSLDKRVILIFHCEFSSERGPRMCRFIRER DRAVNDYPSLYYPEMYILKGGYKEFFPQHPNFCEPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD

 ${\tt GAATTCCGCTAGACTAAGTTGGTC} \underline{{\tt ATG}} {\tt ATG} {\tt ATGCAGAAGCTACTCAAATGCAGTCGGCTTGTCCTGGCTCTTGCCCTC}$  ${\tt ATCCTGGTTCTGGAATCCTCAGTTCAAGGTTATCCTACGCAGAGAGCCAGGTACCAATGGGTGCGCTGCAATCCAATCCAATCCAATGGGTTCAAGGTTATCCTACGCAGAGAGCCAGGTACCAATGGGTGCGCTGCAATCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCCAATCAATCCAATCCAAT$ GACAGTAATTCTGCAAACTGCCTTGAAGAAAAAGGACCAATGTTCGAACTACTTCCAGGTGAATCCAACAAGATC  $\tt CCCCGTCTGAGGACTGACCTTTTTCCAAAGACGAGAATCCAGGACTTGAATCGTATCTTCCCACTTTCTGAGGAC$ TACTCTGGATCAGGCTTCGGCTCCGGCTCTGGATCAGGATCTGGGAGTGGCTTCCTAACGGAAATGGAA  ${\tt CAGGATTACCAACTAGTAGACGAAAGTGATGCTTTCCATGACAACCTTAGGTCTCTTGACAGGAATCTGCCCTCA}$ GACAGCCAGGACTTGGGTCAACATGGATTAGAAGAGGATTTTATGTTA<u>TAA</u>AAGAGGATTTTCCCACCTTGACAC CAGGCAATGTAGCTAGCATATTTTATGTACCATGGTTATATGATTAATCTTGGGACAAAGAATTTTATAGAAATT TTGGCAGGTAATATTCATACCTAAATTAAGACTCTGACTTGGATTGTGAATTATAATGATATGCCCCCTTTTCTT ATAAAAACAAAAAAAAAAAATAATGAAACACAGTGAATTTGTAGAGTGGGGGTATTTGACATATTTTACAGGGTGGA GTGTACTATATACTATTACCTTTGAATGTGTTTGCAGAGCTAGTGGATGTGTTTGTCTACAAGTATGATTGCTGT TACATAACACCCCAAATTAACTCCCAAATTAAAACACAGTTGTGCTGTCAATACCTCATACTGCTTTACCTTTTT TTCCTGGATATCTGTGTATTTTCAAATGTTACTATATATTAAAGCAGAAATATAACC

# 293/2682 FIGURE 272

 ${\tt MMQKLLKCSRLVLALALILVLESSVQGYPTQRARYQWVRCNPDSNSANCLEEKGPMFELLPGESNKIPRLRTDLFPKTRIQDLNRIFPLSEDYSGSGFGSGSGSGSGSGSGFLTEMEQDYQLVDESDAFHDNLRSLDRNLPSDSQDLGQHGLEEDFML}$ 

CCGGTCCTGAGACACGCTGTGTGGCTGAAAAGTGAAGGCAAGAGCTCATTTGGCCTCTGTGCTCCCCTCCGCAAG GGATCGTTTCTCCAGAAGAGCTGGATATTCTTTCGCCCAGTTATCGCAGACAAGTTAACGAGAATTGCTATTGTC AACCATGACAAATGTAAACCTAAGAAATGTCGACAGGAATGCAAAAAGAGTTGTCCTGTAGTTCGAATGGGAAAA TTATGCATAGAGGTTACACCCCAGAGCAAAATAGCATGGATTTCCGAAACTCTTTGTATTGGTTGTGGTATCTGT ATTAAGAAATGCCCCTTTGGCGCCTTATCAATTGTCAATCTACCAAGCAACTTGGAAAAAGAAACCACACATCGA TATTGTGCCAATGCCTTCAAACTTCACAGGTTGCCTATCCCTCGTCCAGGTGAAGTTTTGGGATTAGTTGGAACT AATGGTATTGGAAAGTCAGCTGCTTTAAAAATTTTAGCAGGAAAACAAAAGCCAAACCTTGGAAAGTACGATGAT CCTCCTGACTGGCAGGAGATTTTGACTTATTTCCGTGGATCTGAATTACAAAATTACTTTACAAAGATTCTAGAA GATGACCTAAAAGCCATCATCAAACCTCAATATGTAGCCAGATTCCTAAGGCTGGCAAAGGGGACAGTGGGATCT ATTTTGGACCGAAAAGATGAAACAAAGACACAGGCAATTGTATGTCAGCAGCTTGATTTAACCCACCTAAAAGAA CGAAATGTTGAAGATCTTTCAGGAGGAGAGTTGCAGAGATTTGCTTGTGCTGTCGTTTGCATACAGAAAGCTGAT ATTTTCATGTTTGATGAGCCTTCTAGTTACCTAGATGTCAAGCAGCGTTTAAAGGCTGCTATTACTATACGATCT CTAATAAATCCAGATAGATATATCATTGTGGTGGAACATGATCTAAGTGTATTAGACTATCTCCCGACTTCATC TGCTGTTTATATGGTGTACCAAGCGCCTATGGAGTTGTCACTATGCCTTTTAGTGTAAGAGAAGGCATAAACATT TTTTTGGATGGCTATGTTCCAACAGAAAACTTGAGATTCAGAGATGCATCACTTGTTTTTAAAGTGGCTGAGACA GCAAATGAAGAAGAAGTTAAAAAGATGTGTATGTATAAATATCCAGGAATGAAGAAAAAAATGGGAGAATTTGAG CTAGCAATTGTAGCTGGAGAGTTTACAGATTCTGAAATTATGGTGATGCTGGGGGAAAATGGAACGGGTAAAACG ACATTTATCAGAATGCTTGCTGGAAGACTTAAACCTGATGAAGGAGGAGAAGTACCAGTTCTAAATGTCAGTTAT AAGCCACAGAAAATTAGTCCCAAATCAACTGGAAGTGTTCGCCAGTTACTACATGAAAAGATAAGAGATGCTTAT ACTCACCCACAATTTGTGACCGATGTAATGAAGCCTCTGCAAATTGAAAACATCATTGATCAAGAGGTGCAGACA TTATCTGGTGGTGAACTACAGCGAGTACGTTTACGCCTTTGCTTGGGCAAACCTGCTGATGTCTATTTAATTGAT GAACCATCTGCATATTTGGATTCTGAGCAAAGACTGATGGCAGCTCGAGTTGTCAAACGTTTCATACTCCATGCA AAAAAGACAGCCTTTGTTGTGGAACATGACTTCATCATGGCCACCTATCTAGCGGATCGCGTCATCGTTTTTGAT GAACAAAAGAAGAGTGGAAACTACTTTTTCTTGGATGAT<u>TAG</u>ACTGACTCTGAGAATATTGATAAGCCATTTATT AAAAGGAGTATTTACTAGAATTTTTTGTCATATAAAACTTGAATCAGGATTTTATGCCCCACATACTCTGGAACT TGAAGTATAATATACTTAATATAACATAAAAAGCCAGTTGGGTTCTAAATTGTAGTTGAAACACAGAAAATGCCA CTTTTCTGTTCCTGAAGAGGCTCTTTTGTGCATAATATTCTAAAATGAAGACATTTCAAGCTATACAAATTACTT CCAAGTTTTCATGATGTATGGGAAGATTTTCAGTAGGTGTATTATATTCACGGTACCAAATGCTGACCAGTGTTG CTCCATTTTTTAAATCTTGAAAAGGGTTTCTGTACTTACCTGGTTTGCCAAGTATGCCAGTGTAATGAAACTGCC GTTTTCAGTCTTTGCACTATATTACCAGTATATGGTTTCCGAGGAAGATTATCTACTGCAAAACACCACTGTTGG AAAAATAGGTATTTTTAAATTGTTTTTAATCCTTTTTTGGTGCTTTTAAACATGTTTAAGCAAAAACCAATTCAG GTCATTCTCTAGGTAATGTCATTTTTGTACACATATATTTATATAATCACTGATTGAGATTTAGGAAAAAGCATT TCTAAAGAATATTTGCTTCCCTTAGAACTACAGACTCGAAATCTTTAAAGATGGTGCCTAAGCATCTATGTATTT TTTTTAAGTTCCACAGATTTTTCTGTTGGGCAGGCCAAGGATTATAAACCACTTCCCTAAAGGCAACATTAATGC AAAAGTCCCCAGATGGCAATACAAAGTATCCCCTGGTACCACATATATTCATTTGTGAGTTTGGATATAGAGCAC ATTATCTAAACCATTTTGTAGTTCCAAAAACCCATCTAAATTTCTTGAGTTCCTGAATTTTGAACAGGATTACCT ATGACTGGGGCAAGCAAAATTGAGGAGGAAATTAGAAACTGTTTGACAAACTTTAAGAGCTACTTGAAAATAACAG AAGTCTTGATTAATATGCAAATAATGGCTAGAAAGTATGGTTTAACTGGACCCTATTATGCCTTTTAAAAATAAT TTCAGTAACCCATAAATACATGTTGTAAAAAATTCAAATATACAGAATGGAATAAAAAAATGATCTCCCTTTATT ACCCTCCCAAAGGTTACCAGCGTTTGAATTTAATAATGTATATTCTTTCATGCTTTTTTCTGTGCACTTACCTAA GTGTGAATATGTAAAGGGTTTGTTTTGTATACAAATGGGATTATACTAAAATAAGTAATGCCTATTTTTAAGGAT AGGTTAAATTTGTGAATGATCATTTCAAATATATTGAATAAAATAAGCAAAAGCTATTGTTATTTACTGATCCTG 

# 295/2682 FIGURE 274

MADKLTRIAIVNHDKCKPKKCRQECKKSCPVVRMGKLCIEVTPQSKIAWISETLCIGCGICIKKCPFGALSIVNL PSNLEKETTHRYCANAFKLHRLPIPRPGEVLGLVGTNGIGKSAALKILAGKQKPNLGKYDDPPDWQEILTYFRGS ELQNYFTKILEDDLKAIIKPQYVARFLRLAKGTVGSILDRKDETKTQAIVCQQLDLTHLKERNVEDLSGGELQRF ACAVVCIQKADIFMFDEPSSYLDVKQRLKAAITIRSLINPDRYIIVVEHDLSVLDYLSDFICCLYGVPSAYGVVT MPFSVREGINIFLDGYVPTENLRFRDASLVFKVAETANEEEVKKMCMYKYPGMKKKMGEFELAIVAGEFTDSEIM VMLGENGTGKTTFIRMLAGRLKPDEGGEVPVLNVSYKPQKISPKSTGSVRQLLHEKIRDAYTHPQFVTDVMKPLQ IENIIDQEVQTLSGGELQRVRLRLCLGKPADVYLIDEPSAYLDSEQRLMAARVVKRFILHAKKTAFVVEHDFIMA TYLADRVIVFDGVPSKNTVANSPQTLLAGMNKFLSQLEITFRRDPNNYRPRINKLNSIKDVEQKKSGNYFFLDD

CCGGAGGAGTCCGAGAGGAAGCGGAGGCGCGAGCTGGAGGCGGCGCGCCCCGTCGGCCTCCGGCAGGACTGAGCG AAACTGAAAAACCAAAC<u>ATG</u>AGGGTAGCAGGTGCTGCAAAGTTGGTGGTAGCTGTGGCAGTGTTTTTACTGACAT TTTATGTTATTTCTCAAGTATTTGAAATAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG ACACAGCTGCACGTTCTACAAAGCCTCCCAGATATAAGTGTGGGATCTCAAAAGCTTGCCCTGAGAAGCATTTTG CTTTTAAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAAATCTGCCTGGAAGATAATGTTTTAATGAGTG GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCTTGGCAAATGGAAAAACAGGAGAAGTATTAGACACTA AATATTTTGACATGTGGGGAGGAGATGTGGCACCATTTATTGAGTTTCTGAAGGCCATACAAGATGGAACAATAG TTTTAATGGGAACATACGATGATGGAGCAACCAAACTCAATGATGAGGCACGGCGGCTCATTGCTGATTTGGGGA GCACATCTATTACTAATCTTGGTTTTAGAGACAACTGGGTCTTCTGTGGTGGGAAGGGCATTAAGACAAAAAGCC  ${\tt GATGCATCCCCCAGAAGCAAGAC} \underline{{\tt TAA}} {\tt TGGAAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACTCTTAATGGGA}$ GAGCTATAAATGGCAGAGCTATGTGTAAATATTTTAAGAGCATGCAGCCATCTTGGTGTGCATGAGTATTGTC CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAATGTTTAGACTGCTATGGTAATACATATTTTAAATTCTA AAAGCATACACAATGTGTAACTGAATGGTTTGTGAAAAATATATTGATATATACTAGTTGCTATGAAAATATAT ATGGAATAATAGGGATTTTAGGGTGGATACTTTATTTTCTTTTATGTTTCTATATGTTGCGTTGTGATGACATTA TCTTTTAAATTAAAAAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCTCCTGATGTACCT AAAGCACAACAAATTCTTAATGTACACAGTAAAAAAGTAAATATATAAATGTAGATGGCATTTAGGACCACAGC TTGCTGGATTTGTGTTAGCTATGGGAATAACTTGATTTTGTATAAGCTATTTAGAGTGAGGCTGGAGGTGGCAGC TTCACAGAACTGGAGAACCAGGCCAAGTCCCCTCCCCAACCTAATTAGGTCATTCAGGACAGCTAAGTCAGTATA TTTAGAGCAATACTAGCATACGTTTTTCTTAATTGTTATCAGCATTGACCAAGTGGTTTGGAAGGAGGCATGCTT TAATATCACAATAATTTTGATTTGTAAACCAAGAAATTAATCCTGTGTTTATCTAACTTCATAATAGCAATTATT GCCCGAAGCTATAGTGGCATATTTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAAATTATTGTG GTTCACTAAATAACTCAGTTTTTAAGCAGAAGTTTTCAGGGCATTAAATATATGTTGTATGAAGTATCTCAAA CTGGAACATAAATTTAGTGATCAAACTGCCATTCACAGTGTAAGGCAGCACTTAAATTTCGAACCTAAAGTTTAG ATGCATTGTATAAAAAAACCTAAAAGCAGTATCTGTTATTTAGCTGTAAACCAAGTTGGAAGCTATTCGGATAAT CCTTATATGTTTAAACAATCTTTGTATACTTTTGGGATTTTTGGTGCTTATATGCTAAATCACATTCAGCATGTG TATTTTGACATTTAAAATACTTCCCTCAATTCTGTAAATTAAAAGAATAGTTATTTTACAGTTCCAGGGATTGTG 

# 297/2682 FIGURE 276

MRVAGAAKLVVAVAVFLLTFYVISQVFEIKMDASLGNLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS GAANVVGPKICLEDNVLMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY DDGATKLNDEARRLIADLGSTSITNLGFRDNWVFCGGKGIKTKSPFEQHIKNNKDTNKYEGWPEVVEMEGCIPQK QD

TACTGACTTTCAGCACCAACTTGTGGTCCCAGGTAAGTTTCCACGCTGGTACTTTAGCCCTGGGCTCGAACCTGC GGACACGCTGTGGCTGCAACTCCCCGCCCGCCAGACCTCAGTACGCAGCGCGGCTGGTGAGAAACATAATGCACT ACTGATGTGCGCAGGGACTGGCGGCAGCGCGGTCAGAGCCAGTCAGCCAAAGCCAGGCCAGCACAATAGACTGTC  ${\tt TCTACGCTTGCGCGCGCAACAGGGCCGACTGCAGCTGGAAG} \underline{{\tt ATG}} {\tt GCGGCGTCCGTGGTCTGTCGGGCCGCTACC}$ ACCTTCGCTCAGGCGCTCCAGTTCGTGCCGGAGACGCAGGTTAGCCTGCTGGACAACGGCCTGCGTGTGGCCTCC GAGCAGTCCTCTCAGCCCACTTGCACGGTGGGAGTGTGGATTGATGTTGGCAGCCGTTTTGAGACTGAGAAGAAT AATGGGGCAGGCTACTTTTTGGAGCATCTGGCTTTCAAGGGAACAAAGAATCGGCCTGGCAGTGCCCTGGAGAAG GAGGTGGAGAGCATGGGGGCCCATCTTAATGCCTACAGCACCCGGGAGCACACAGCTTACTACATCAAGGCGCTG TCCAAGGATCTGCCGAAAGCTGTGGAGCTCCTGGGTGACATTGTGCAGAACTGTAGTCTGGAAGACTCACAGATT GAGAAGGAACGTGATGTGATCCTGCGGGAGATGCAGGAGAATGATGCATCTATGCGAGATGTGGTCTTTAACTAC CTGCATGCCACAGCATTCCAGGGCACACCTCTAGCCCAGGCTGTGGAGGGGCCCAGTGAGAATGTCAGGAAGCTG TCTCGTGCAGACTTGACCGAGTACCTCAGCACACATTACAAGGCCCCTCGAATGGTGCTGGCAGCAGCTGGAGGA GTGGAGCACCAGCAACTGTTAGACCTCGCCCAGAAGCACCTCGGTGGCATCCCATGGACATATGCAGAGGACGCT GTGCCCACTCTTACTCCATGCCGCTTCACTGGCAGTGAGATCCGCCACCGTGATGATGCTCTACCTTTTGCCCAC GTGGCCATTGCAGTAGAGGGTCCTGGCTGGGCCAGCCCGGACAGTGTGGCCTTGCAAGTGGCCAATGCCATCATC GGCCACTATGACTGCACTTATGGTGGTGGCGTGCACCTGTCCAGCCCACTGGCTTCAGGTGCTGTGGCCAACAAG CTATGCCAGAGTTTCCAGACCTTCAGCATCTGCTATGCAGAGACGGGCTTGCTGGGTGCACACTTTGTCTGTGAC CGAATGAAAATCGATGACATGATGTTCGTCCTGCAAGGGCAGTGGATGCCCTGTGTACCAGTGCCACGGAGAGT GACATCGGACGCAGCCTCCTGACCTATGGCCGCCGCATCCCCCTGGCTGAATGGGAAAGCCGGATTGCGGAGGTG GATGCCAGTGTGGTACGTGAGATCTGCTCCAAGTACATCTATGACCAGTGCCCAGCAGTGGCTGGATATGGCCCC  ${\tt ATTGAGCAGCTCCCAGACTACAACCGGATCCGTAGCGGCATGTTCTGGCTGCGCTTC} {\color{red}{\underline{\textbf{TAC}}}} {\tt GCGGGAAGCCTATGT}$ CCACAGGTGACCACCAATAAAATCCTCTGCTGAGA

# 299/2682 FIGURE 278

MAASVVCRAATAGAQVLLRARRSPALLRTPALRSTATFAQALQFVPETQVSLLDNGLRVASEQSSQPTCTVGVWI
DVGSRFETEKNNGAGYFLEHLAFKGTKNRPGSALEKEVESMGAHLNAYSTREHTAYYIKALSKDLPKAVELLGDI
VQNCSLEDSQIEKERDVILREMQENDASMRDVVFNYLHATAFQGTPLAQAVEGPSENVRKLSRADLTEYLSTHYK
APRMVLAAAGGVEHQQLLDLAQKHLGGIPWTYAEDAVPTLTPCRFTGSEIRHRDDALPFAHVAIAVEGPGWASPD
SVALQVANAIIGHYDCTYGGGVHLSSPLASGAVANKLCQSFQTFSICYAETGLLGAHFVCDRMKIDDMMFVLQGQ
WMRLCTSATESEVARGKNILRNALVSHLDGTTPVCEDIGRSLLTYGRRIPLAEWESRIAEVDASVVREICSKYIY
DQCPAVAGYGPIEQLPDYNRIRSGMFWLRF

GGCACACACGAGGAGGAGGGTTGAGCTGCCGCCGCCGCCTCTGTCGTCGTCGCGAGTGTGGAGTCGGGACTG GAGCTGCTGCCGCGGCGACGCCGGGGATCTTTGTCGCTAGCTCCCGGCCCTTCTGCCCCGCCGCCTTCCCTCAGT GCAGCGACTCGGCGCCTGACTGCTGGGACCAGGCGGACATGGAAGCCCCCGGGCCGGGCCCTTGCGGCGGCGGCG GCTTCCCTGGCGGCGGCGGCGAGGCCCAGCGGGAGAACCTCAGCGCGGCCTTCAGCCGGCAACTCAACGTCAAC CCCCAGCTGGCGGCGCCAATAACCACGGAGCCGGCAGCGGGGGGGCCGTGCGGCACCTGTGGAATCC TCTCAAGAGGAACAGTCATTGTGTGAAGGTTCAAATTCAGCTGTTAGCATGGAACTTTCAGAACCTATTGTAGAA AATGGAGAGACAGAAATGTCTCCAGAAGAATCATGGGAGCACAAAGAAGAAATAAGTGAAGCAGAGCCAGGGGGT GGTTCCTTGGGAGATGGAAGGCCGCCAGAGGAAAGTGCCCATGAAATGATGGAGGAGGAAGAGGAAATCCCAAAA GCTGGCAAGTCAACCATTGGAGGACAAATAATGTATTTGACTGGAATGGTTGACAAAAGGACGCTTGAAAAGTAT GAAAGAGAAGCTAAAGAGAAAAACAGAGAAACTTGGTACTTGTCTTGGGCCTTAGACACAAATCAGGAAGAACGA GACAAGGGTAAAACAGTAGAAGTGGGTCGTGCCTATTTTGAAACCGAAAAGAAGCATTTCACAATTCTAGATGCC CCTGGCCACAAGAGTTTTGTCCCAAATATGATTGGTGGTGCCTCTCAAGCTGATTTGGCTGTTGTCTGATCTCA GAAGAATGTAAGGAGAAACTAGTGCCATTTTTGAAAAAAGTTGGCTTCAATCCCAAAAAGGACATTCACTTTATG CCCTGCTCAGGACTTACTGGAGCAAATCTCAAAGAGCAGTCGGATTTCTGTCCTTGGTACATTGGATTACCGTTT ATTCCATATCTGGATAATTTGCCGAACTTCAATAGATCAGTTGATGGACCAATCAGGCTGCCAATTGTGGATAAG TACAAGGATATGGGCACTGTGGTCCTGGGAAAGCTGGAATCAGGATCTATTTGTAAAGGCCAGCAGCTTGTGATG ATGCCAAACAAGCACAACGTGGAAGTTCTTGGAATACTTTCCGATGATGATGAGACTGATACCGTAGCCCCAGGT AATCTTTGTCATTCTGGACGCACATTTGATGCCCAGATAGTGATTATAGAGCACAAATCCATCATCTGCCCAGGC TATAATGCGGTGCTGCATATTCATACCTGTATTGAGGAGGTGGAAATAACAGCCTTAATCTGCTTGGTAGACAAA AAATCAGGAGAAAAAAGTAAGACCCGACCCCGTTTTGTGAAACAAGATCAAGTATGCATTGCTCGCTTAAGGACA GCAGGAACCATCTGCCTTGAGACCTTTAAAGACTTCCCTCAGATGGGTCGTTTCACCTTAAGAGATGAGGGTAAG ACCATTGCAATTGGAAAAGTTCTGAAACTGGTTCCAGAGAAAGAC<u>TAA</u>GCATTTTCTTGATGACCCTGCACAATA CTGTGAGGAAAATTGACTGCAGAAGCCTACTTCACACCGCCTTCTCTTATTTTCTGCCCATTGATAAACCTCTCC CCATATTTTGCAAAGAGGAAATTCACAGCAAAAGTCCACATTATGTCAGCTTTCTCATATTGAGAGCTCTGCTAT GCCACTGTTGAATTTTTCCCAAGATTCCTGTCCCTAGCCCTCACTTCAAACTCTGCTTCCTTGGACAGATTTGGC AATAGCTTTGTAAGTGATGTGGACATAATTGCCTACAATAATGAAAACCTACAGGAATTTTTTTATTTTTCATTT TCCCCTTAGGCATATTTAGTATTTTTCCCCCAGGCCAGATCATTCGTGAGTGTGCGAGTGTGTGCACATGTTA CAAAGGCAACTACCATGTTAATAAAATATTCAATTTG

# 301/2682 FIGURE 280

MELSEPIVENGETEMSPEESWEHKEEISEAEPGGGSLGDGRPPEESAHEMMEEEEEIPKPKSVVAPPGAPKKEHV
NVVFIGHVDAGKSTIGGQIMYLTGMVDKRTLEKYEREAKEKNRETWYLSWALDTNQEERDKGKTVEVGRAYFETE
KKHFTILDAPGHKSFVPNMIGGASQADLAVLVISARKGEFETGFEKGGQTREHAMLAKTAGVKHLIVLINKMDDP
TVNWSNERYEECKEKLVPFLKKVGFNPKKDIHFMPCSGLTGANLKEQSDFCPWYIGLPFIPYLDNLPNFNRSVDG
PIRLPIVDKYKDMGTVVLGKLESGSICKGQQLVMMPNKHNVEVLGILSDDVETDTVAPGENLKIRLKGIEEEEIL
PGFILCDPNNLCHSGRTFDAQIVIIEHKSIICPGYNAVLHIHTCIEEVEITALICLVDKKSGEKSKTRPRFVKQD
QVCIARLRTAGTICLETFKDFPQMGRFTLRDEGKTIAIGKVLKLVPEKD

# 303/2682 FIGURE 282

MEALPLLAATTPDHGRHRRLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH LSKAKISKPAPYWEGTAVIDGEFKELKLTDYRGKYLVFFFYPLDFTFVCPTEIIAFGDRLEEFRSINTEVVACSV DSQFTHLAWINTPRRQGGLGPIRIPLLSDLTHQISKDYGVYLEDSGHTLRGLFIIDDKGILRQITLNDLPVGRSV DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

GGAAAAAAGCGACTTGTGGCGGTCGAGCGTGGCGCAGGCGAATCCTCGGCACTAAGCAAAT<u>ATG</u>GACCTCGCGGC GGCAGCGGAGCCGGCCGGCAGCCAGCACCTGGAGGTCCGCGACGAGGTGGCCGAGAAGTGCCAGAAACTGTT CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAAATACTTGCAATTAGCAGAGGAACTGATTCG TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTTAACCAGCAACTTTCCACCACCATTCA AGAGGAGTTCTATAGAGTTTACCCTTACCTGTGTCGGGCCTTGAAAACATTCGTCAAAGACCGTAAAGATCCC TCTTGCCAAGGATTTTTATGTTGCATTCCAAGACCTGCCTACCAGACACAAGATTCGAGAGCTCACCTCATCCAG AATTGGTTTGCTCACTCGCATCAGTGGGCAGGTGGTGCGGACTCACCCAGTTCACCCAGAGCTTGTGAGCGGAAC TTTTCTGTGCTTGGACTGTCAGACAGTGATCAGGGATGTAGAACAGCAGTTCAAATACACACCAAACATCTG GGTTCGTATTCAAGAGACCCAAGCTGAGCTTCCTCGAGGGAGTATCCCCCGCAGTTTAGAAGTAATTTTAAGGGC TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACTTTACAGGGACACTGATTGTTGTGCCTGACGTCTC CAAGCTTAGCACCACGAGCACCACGTGCAGAAACTAATTCCCGTGTCAGTGGTGTTGATGGATATGAGACAGAAGG TGTGAAAGAATGGGAGAAAGTGTTTGAGATGAGTCAAGATAAAAATCTATACCACAATCTTTGTACCAGCCTGTT CCCTACTATACATGGCAATGATGAAGTAAAACGGGGTGTCCTGCTGATGCTCTTTGGTGGCGTTCCAAAGACAAC AGGAGAAGGGACCTCTCTTCGAGGGGACATAAATGTTTGCATTGTTGGTGACCCAAGTACAGCTAAGAGCCAATT TCTCAAGCACGTGGAGGAGTTCAGCCCCAGAGCTGTCTACACCAGTGGTAAAGCGTCCAGTGCTGGCTTAAC AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTCATTGAGGCTGGAGCTTTGATGTTGGCTGATAATGG TGTGTGTTGTATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTCATGAAGCTATGGAACAGCA GACCATATCCATCACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGGACGTCCATTTTGGCAGCAGCAAACCC AATCAGTGGACACTATGACAGATCAAAATCATTGAAACAGAATATAAATTTGTCAGCTCCCATCATGTCCCGATT CGATCTCTTCTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATTT GCATTCAAGAATTGAGGAATCAATTGATCGTGTCTATTCCCTCGATGATATCAGAAGATATCTTCTCTTTGCAAG ACAGTTTAAACCCAAGATTTCCAAAGAGTCAGAGGACTTCATTGTGGAGCAATATAAACATCTCCGCCAGAGAGA TGGTTCTGGAGTGACCAAGTCTTCATGGAGGATTACAGTGCGACAGCTTGAGAGCATGATTCGTCTCTGAAGC AATCATCCGTGTGGAAACACCTGATGTCAATCTAGATCAAGAGGAAGAGTCCAGATGGAGGTAGATGAGGGTGC TGGTGGCATCAATGGTCATGCTGACAGCCCTGCTCCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA AGAGTCTGCTCCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA CACACACTATGATCATGTTCTAATTGAGCTCACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAAGTGAGAGCTA TGAAGAAGATCCCTACTTGGTAGTTAACCCTAACTACTTGCTCGAAGAT<u>TGA</u>GATAGTGAAAGTAACTGACCAGA GCTGAGGAACTGTGGCACACCACCTCGTGGCCTGGAGCCTGGAGCTCTGCTAGGGACAGAAGTGTTTCTGG AAGTGATGCTTCCAGGATTTGTTTTCAGAAACAAGAATTGAGTTGATGGTCCTATGTGTCACATTCATCACAGGT TTCATACCAACACGGCTTCAGCACTTCCTTTGGTGTGTTTCCTGTCCCAGTGAAGTTGGAACCAAATAATGTGT AGTCTCTATAACCAATACCTTTGTTTTCATGTGTAAGAAAAGGCCCATTACTTTTAAGGTATGTGCTGTCCTATT GAGCAAATAACTTTTTTTCAATTGCCAGCTACTGCTTTTATTCATCAAAATAAAATAACTTGTTCTG

## 305/2682 FIGURE 284

MDLAAAAEPGAGSQHLEVRDEVAEKCQKLFLDFLEEFQSSDGEIKYLQLAEELIRPERNTLVVSFVDLEQFNQQL
STTIQEEFYRVYPYLCRALKTFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLLDTNKSRFVDFQKVRIQETQAELPRGSIPRSLE
VILRAEAVESAQAGDKCDFTGTLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGVRDLSYRLVFLA
CCVAPTNPRFGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTIHGNDEVKRGVLLMLFGG
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSPRAVYTSGKASSAAGLTAAVVRDEESHEFVIEAGALM
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQNINLSAP
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH
LRQRDGSGVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLLNKSIIRVETPDVNLDQEEEIQME
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASLRLGFSEYCRISNLIVLHLRKVEEEEDESALKRSELVN
WYLKEIESEIDSEEELINKKRIIEKVIHRLTHYDHVLIELTQAGLKGSTEGSESYEEDPYLVVNPNYLLED

# 307/2682 FIGURE 286

 ${\tt MSYKPNLAAHMPAAALNAAGSVHSPSTSMATSSQYRQLLSDYGPPSLGYTQGTGNSQVPQSKYAELLAIIEELGKEIRPTYAGSKSAMERLKRGIIHARGLVRECLAETERNARS}$ 

## 308/2682 FIGURE 287A

GCGGGGAAGCAGCAGCGGCCAGGATGAATCCCAGGTGCTCTGGAGCTGGATGGTGAAGGTCGGCACTCTTCACCC TCCCGAGCCCTGCCCGTCTCGGCCCCATGCCCCCACCAGTCAGCCCCGGGCCACAGGCAGTGAGCAGGCACCTGG  ${\tt GAGCCGAGGCCCTGTGACCAGGCCAAGGAGACGGGCGCTCCAGGGTCCCAGCCACCTGTCCCCCCC} \underline{{\tt ATC}}{\tt GAGCTG}$ AGGCCCTGGTTGCTATGGGTGGTAGCAGCAACAGGAACCTTGGTCCTGCTAGCAGCTGATGCTCAGGGCCAGAAG GTCTTCACCAACACGTGGGCTGTGCGCATCCCTGGAGGCCCAGCGGTGGCCAACAGTGTGGCACGGAAGCATGGG TTCCTCAACCTGGGCCAGATCTTCGGGGACTATTACCACTTCTGGCATCGAGGAGTGACGAAGCGGTCCCTGTCG CCTCACCGCCCGCGCACAGCCGGCTGCAGAGGGAGCCTCAAGTACAGTGGCTGGAACAGCAGGTGGCAAAGCGA CGGACTAAACGGGACGTGTACCAGGAGCCCACAGACCCCAAGTTTCCTCAGCAGTGGTACCTGTCTGGTGTCACT CAGCGGGACCTGAATGTGAAGGCGGCCTGGGCGCAGGGCTACACAGGGCACGGCATTGTGGTCTCCATTCTGGAC GATGGCATCGAGAAGAACCACCCGGACTTGGCAGGCAATTATGATCCTGGGGCCAGTTTTGATGTCAATGACCAG GACCCTGACCCCCAGCCTCGGTACACACAGATGAATGACAACAGGCACGGCACACGGTGTGCGGGGGAAGTGGCT GCGGTGGCCAACAACGGTGTCTGTGGTGTAGGTGTGGCCTACAACGCCCGCATTGGAGGGGTGCGCATGCTGGAT GGCGAGGTGACAGATGCAGTGGAGGCACGCTCGCTGGGCCTGAACCCCAACCACATCCACATCTACAGTGCCAGC TGGGGCCCCGAGGATGACGGCAAGACAGTGGATGGGCCAGCCCGCCTCGCCGAGGAGGCCTTCTTCCGTGGGGTT AGCCAGGGCCGAGGGGGCTGGGCTCCATCTTTGTCTGGGCCTCGGGGAACGGGGGCCGGGAACATGACAGCTGC AACTGCGACGGCTACACCAACAGTATCTACACGCTGTCCATCAGCAGCGCCACGCAGTTTGGCAACGTGCCGTGG TACAGCGAGGCCTGCTCGTCCACACTGGCCACGACCTACAGCAGTGGCAACCAGAATGAGAAGCAGATCGTGACG ACTGACTTGCGGCAGAAGTGCACGGAGTCTCACACGGGCACCTCAGCCTCTGCCCCCTTAGCAGCCGGCATCATT GCTCTCACCCTGGAGGCCAATAAGAACCTCACATGGCGGGACATGCAACACCTGGTGGTACAGACCTCGAAGCCA GCCCACCTCAATGCCAACGACTGGGCCACCAATGGTGTGGGCCGGAAAGTGAGCCACTCATATGGCTACGGGCTT TTGGACGCAGGCGCCATGGTGGCCCTGGCCCAGAATTGGACCACAGTGGCCCCCCAGCGGAAGTGCATCATCGAC ATCCTCACCGAGCCCAAAGACATCGGGAAACGGCTCGAGGTGCGGAAGACCGTGACCGCGTGCCTGGGCGAGCCC AACCACATCACTCGGCTGGAGCACGCTCAGGCGGCTCACCCTGTCCTATAATCGCCGTGGCGACCTGGCCATC CACCTGGTCAGCCCCATGGGCACCCGCTCCACCTGCTGGCAGCCAGGCCACATGACTACTCCGCAGATGGGTTT AATGACTGGGCCTTCATGACAACTCATTCCTGGGATGAGGATCCCTCTGGCGAGTGGGTCCTAGAGATTGAAAAC ACCAGCGAAGCCAACAACTATGGGACGCTGACCAAGTTCACCCTCGTACTCTATGGCACCGCCCCTGAGGGGCTG CCCGTACCTCCAGAAAGCAGTGGCTGCAAGACCCTCACGTCCAGTCAGGCCTGTGTGGTGTGCGAGGAAGGCTTC TCCCTGCACCAGAAGAGCTGTGTCCAGCACTGCCCTCCAGGGTTCGCCCCCAAGTCCTCGATACGCACTATAGC ACCGAGAATGACGTGGAGACCATCCGGGCCAGCGTCTGCGCCCCTGCCACGCCTCATGTGCCACATGCCAGGGG CCGGCCCTGACAGACTGCCTCAGCTGCCCAGCCACGCCTCCTTGGACCCTGTGGAGCAGACTTGCTCCCGGCAA AGCCAGAGCCGCAGAGTCCCCGCCACAGCAGCCACCTCGGCTGCCCCCGGAGGTGGAGGCGGGCAACGG TTCGTCACTGTCTTCCTGGTCCTGCAGCTGCGCTCTGGCTTTAGTTTTCGGGGGGTGAAGGTGTACACCATGGAC CGTGGCCTCATCTCCTACAAGGGGCTGCCCCCTGAAGCCTGGCAGGAGGAGTGCCCGTCTGACTCAGAAGAGGAC  ${\tt GAGGGCCGGGGGGAGAGGACCGCCTTTATCAAAGACCAGAGCGCCCTC} {\tt TGAT} {\tt TGAGCCCACTGCCCACCCCCTCAA}$ GGGAGGCAAGAGGGGTGGAGACTGCTTCCCATCCTACCCTCGGGCCCACCTGGCCACCTGAGGTGGGCCCAGGAC CAGCTGGGGCGTGGGGAGGGCCGTACCCCACCCTCAGCACCCTTCCATGTGGAGAAAGGAGTGAAACCTTTAGG CTGACCCAGGCCGCAGCTCTTGCCCTTCCCTGTCCCTCTAAAGCAATAATGGTCCCATCCAGGCAGTCGGGGGCT GGCCTAGGAGATATCTGAGGGAGGAGGCCACCTCTCCAAGGGCTTCTGCACCCTCCACCCTGTCCCCCAGCTCTG GTGAGTCTTGGCGGCAGCCATCATAGGAAGGGACCAAGGCAAGGCAGGTGCCTCCAGGTGTGCACGTGGCAT AGCCAAGGCCGAAGCTCTGGCTGAACCCTGTGCTGGTGTCCTGACCACCCTCCCCTCTTGCACCCGCCTCTCC GTGGGTGGTGGGGGGGGCGCTGGCCCAGCCGGCCTCTCTGGCCTCCCACCCGATGCTGCTTTCCCCTGTGGGGA TCTCAGGGGCTGTTTGAGGATATATTTTCACTTTGTGATTATTTCACTTTAGATGCTGATGATTTGTTTTTGTAT TTTTAATGGGGGTAGCAGCTGGACTACCCACGTTCTCACACCCCACCGTCCGCCCTGCTCCCTGGCTGCCCTG

#### 309/2682 FIGURE 287B

GCCCTGAGGTGTGGGGGCTGCAGCATGTTGCTGAGGAGTGAGGAATAGTTGAGCCCCAAGTCCTGAAGAGGCGGG CCAGCCAGGCGGGCTCAAGGAAAGGGGGTCCCAGTGGGAGGGCAGGCTGACATCTGTGTTTCAAGTGGGGCTCG CCATGCCGGGGGTTCATAGGTCACTGGCTCTCCAAGTGCCAGAGGTGGGCAGGTGGTGGCACTGAGCCCCCCAA CACTGTGCCCTGGTGGAGAAAGCACTGACCTGTCATGCCCCCCTCAAACCTCCTCTTCTGACGTGCCTTTTGCAC CCCTCCCATTAGGACAATCAGTCCCCTCCCATCTGGGAGTCCCCTTTTCTTTTCTACCCTAGCCATTCCTGGTAC CCAGCCATCTGCCCAGGGGTGCCCCCTCCTCTCCCATCCCCTGCCCTCGTGGCCAGCCCGGCTGGTTTTGTAAG ATGCTGGGTTGGTGCACAGTGATTTTTTTCTTGTAATTTAAACAGGCCCAGCATTGCTGGTTCTATTTAATGGAC ATGAGATAATGTTAGAGGTTTTAAAGTGATTAAACGTGCAGACTATGCAAACCAG

## 310/2682 FIGURE 288

MELRPWLLWVVAATGTLVLLAADAQGQKVFTNTWAVRIPGGPAVANSVARKHGFLNLGQIFGDYYHFWHRGVTKR SLSPHRPRHSRLQREPQVQWLEQQVAKRRTKRDVYQEPTDPKFPQQWYLSGVTQRDLNVKAAWAQGYTGHGIVVS ILDDGIEKNHPDLAGNYDPGASFDVNDQDPDPQPRYTQMNDNRHGTRCAGEVAAVANNGVCGVGVAYNARIGGVR MLDGEVTDAVEARSLGLNPNHIHIYSASWGPEDDGKTVDGPARLAEEAFFRGVSQGRGGLGSIFVWASGNGGREH DSCNCDGYTNSIYTLSISSATQFGNVPWYSEACSSTLATTYSSGNQNEKQIVTTDLRQKCTESHTGTSASAPLAA GIIALTLEANKNLTWRDMQHLVVQTSKPAHLNANDWATNGVGRKVSHSYGYGLLDAGAMVALAQNWTTVAPQRKC IIDILTEPKDIGKRLEVRKTVTACLGEPNHITRLEHAQARLTLSYNRRGDLAIHLVSPMGTRSTLLAARPHDYSA DGFNDWAFMTTHSWDEDPSGEWVLEIENTSEANNYGTLTKFTLVLYGTAPEGLPVPPESSGCKTLTSSQACVVCE EGFSLHQKSCVQHCPPGFAPQVLDTHYSTENDVETIRASVCAPCHASCATCQGPALTDCLSCPSHASLDPVEQTC SRQSQSSRESPPQQQPPRLPPEVEAGQRLRAGLLPSHLPEVVAGLSCAFIVLVFVTVFLVLQLRSGFSFRGVKVY TMDRGLISYKGLPPEAWQEECPSDSEEDEGRGERTAFIKDQSAL

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACTCCTCGGAACCATG GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA CGAGATGCCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTTGACAATCCAGCAGCT AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTCATCCACAGACCATCATAGCGGGTTGGAGA GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCTGCAGTTGATCATGGTTCCGATGAAGTTAAATTCCGT CAAGATTTAATGAATATTGCGGGCACAACATTATCCTCAAAACTTCTTACTCATCACAAAGACCACTTTACAAAG TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTCATATTATCAAGAAGCTAGGA GGAAGTTTGGCAGATTCCTATTTAGATGAAGGCTTCCTGTTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA ATTGAAAATGCTAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAAGATATTTGGTTCCCGGGTA AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT GCTGGTGTCATGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTCACAGGTGGTGAAATT GCCTCTACCTTTGATCACCCAGAACTGGTGAAGCTTGGAAGTTGCAAACTTATCGAGGAAGTCATGATTGGAGAA GACAAACTCATTCACTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAACTGTAAAGGACTCTAGAACA GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACACCAGGCAAA GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT GACAGTGCAGACCTGGTGGCACAGCTCAGGGCTGCTCACAGTGAAGGCAATACCACTGCTGGATTGGATATGAGG GAAGGCACCATTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT  $\texttt{CACCACCCTGT} \underline{\textbf{TAA}} \texttt{GCATTCCCACGTGCTGTCGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAAGATA}$ CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCCATTATATCCTTAAGTTTGGATATTTAGCTGACCTT CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTTAAAGGAGTTCATTTCG 

# 312/2682 FIGURE 290

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG VDNPAAKVLVDMSRVQDDEVGDGTTSVTVLAAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS DEVKFRQDLMNIAGTTLSSKLLTHHKDHFTKLAVEAVLRLKGSGNLEAIHIIKKLGGSLADSYLDEGFLLDKKIG VNQPKRIENAKILIANTGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMKEKVERILKHGINCFINRQLIYNYP EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSCKLIEEVMIGEDKLIHFSGVALGEACTIVL RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVILRVDNIIKAAP RKRVPDHHPC

GCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGTTCGCTGGTTCGCCACCT  ${\tt CAGGGGAACG} \underline{\textbf{ATG}} \texttt{GCCATGGAGTCCACAGCCACTGCCGCCGTCGCCGGGACGTGGTTTCTGCCGACAAAATTGA}$ AGATGTCCCTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAAACTATT GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTATGGGAAATCACTTCTGGA GTTGGCAAGAATGGAGAATGGTGTTGGGAAACGCCTTGGAAGGTGTGCATGTGGAAGAAGAAGAAGAAAAA AACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTGAGAGAACAGGT TTATGACGCCATGGGAGAAAAAGGAAGCCAAAAAAAACAGAAGACAAGTCTTTGGCAAAGCCTGAAACTGATAA AGAACAGGACAGTGAAATGGAGAAGGGTGGAAGAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGAGCAGCACCAGAAGGACC GAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG AACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTCAGGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA GAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACTGCAGTGGAGGTAGAAGC AAACGAGGCAGGAAAGGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCTGAAGAGTCACCAGAGGT GCAAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAAGCCTGGGCAGGAGGCTCC AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCTATTGAACCACAGACTTC TATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAGGGCAAAGCTGGTTCCTAGTCA GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACCAAGGTAGCCCAGGGAGC TACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAAGAACAGATGAA AGAGGGTGAAGAACTGAAGGCTCGGAAGAGGATGATAAAGAAATGATAAGACTGAAGAAATGCCAAATGATTC AGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCCTGGGATATGCT GGATTTAGCAAAGATCATTTTTAAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCTGCCCAGGCACATCTTAA ACTCGGAGAAGTTAGTGTTGAATCTGAAAACTATGTGCAAGCTGTGGAGGAGTTCCAGTCCTGCCTTAACCTGCA GGAACAGTACCTGGAAGCCCACGACCGTCTGCTTGCAGAGACCCACTACCAGCTGGGCTTGGCTTATGGGTACAA CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAACAGAATGGCTGTACTAAA AATTAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCTGAACTGGCTCTGAAAGCTAC TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTCTCCATGATTGCCAGTAGAAA GGAAGAGAGTCCCCGGAAAGATGATGCAAAGAAGACCCAAACAAGAGCCGGAGGTGAACGGAGGCAGTGGGGATGC TGTCCCGAGTGGAAATGAAGTTTCGGAAAACATGGAGGAGGAGGCTGAGAATCAGCTGAAACGCGGAGCAGCAGT  ${\tt GGAGGGGACACTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGT}{{\tt TAA}}{\tt GAGGGGGGCACAGCCTCCTCCCAAGGG}$ AAAGTGTTTTTGTATATAATGTATTTTTTCACTTTTGGAGGATTCTTTTTGTATAACTTCAATAAAGATTGTAAG САААААААААА

## 314/2682 FIGURE 292

MAMESTATAAVAADVVSADKIEDVPAPSTSADKVESLDVDSEAKKLLGLGQKHLVMGDIPAAVNAFQEAASLLGK
KYGETANECGEAFFFYGKSLLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA
MGEKEEAKKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA
EVTSGKPEQEVPDAEEEKSVSGTDVQEECREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL
DPTVKPVDVGGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEAPVLP
KDGAVNGPSVVGDQTPIEPQTSIERLTETKDGSGLEEKVRAKLVPSQEETKLSVEESEAAGDGVDTKVAQGATEK
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPNDSVLENKSLQENEEEEIGNLELAWDMLDLA
KIIFKRQETKEAQLYAAQAHLKLGEVSVESENYVQAVEEFQSCLNLQEQYLEAHDRLLAETHYQLGLAYGYNSQY
DEAVAQFSKSIEVIENRMAVLNEQVKEAEGSSEYKKEIEELKELLPEIREKIEDAKESQRSGNVAELALKATLVE
SSTSGFTPGGGGGSSVSMIASRKPTDGASSSNCVTDISHLVRKKRKPEEESPRKDDAKKAKQEPEVNGGSGDAVPS
GNEVSENMEEEAENQLKRGAAVEGTLEAGATVESTAC

AAGCGATGGCTGGGCCCGCGTGGATCTCCAAGGTCTCTCGGCTGCTGGGGGCATTCCACAACCCAAAACAGGTGA CCAGAGGTTTTACTGGTGGTGTTCAGACAGTAACTTTAATTCCAGGAGATGGTATTGGCCCAGAAATTTCAGCTG CAGTTATGAAGATTTTTGATGCTGCCAAAGCACCTATTCAGTGGGAGGAGCGGAACGTCACTGCCATTCAAGGAC CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGAACAAGATGGGCTTGAAAAGGCCCTT TGAAGACCCCAATAGCAGCCGGTCACCCATCTATGAATTTACTGCTGCGCAAAACATTTGACCTTTACGCGAATG TCCGACCATGTGTCTCTATCGAAGGCTATAAAACCCCTTACACCGATGTAAATATTGTGACCATTCGAGAGAACA CAGAAGGAGAATACAGTGGAATTGAGCATGTGATTGTTGATGGAGTCGTGCAGAGTATCAAGCTCATCACCGAGG GGGCGAGCAAGCGCATTGCTGAGTTTGCCTTTGAGTATGCCCGGAACAACCACCGGAGCAACGTCACGGCGGTGC ACAAAGCCAACATCATGCGGATGTCAGATGGGCTTTTTCTACAAAAATGCAGGGAAGTTGCAGAAAGCTGTAAAG ATATTAAATTTAATGAGATGTACCTTGATACAGTATGTTTGAATATGGTACAAGATCCTTCCCAATTTGATGTTC TTGTTATGCCAAATTTGTATGGAGACATCCTTAGTGACTTGTGTGCAGGATTGATCGGAGGTCTCGGTGTGACAC CAAGTGGCAACATTGGAGCCAATGGGGTTGCAATTTTTGAGTCGGTTCATGGGACGGCTCCAGACATTGCAGGCA AGGACATGGCGAATCCCACAGCCCTCCTGCTCAGTGCCGTGATGATGCTGCGCCACATGGGACTTTTTGACCATG CTGCAAGAATTGAGGCTGCGTGTTTTGCTACAATTAAGGACGGAAAGAGCTTGACAAAAGATTTGGGAGGCAATG CAAAATGCTCAGACTTCACAGAGGAAATCTGTCGCCGAGTAAAAGATTTAGAT<u>TAA</u>CACTTCTACAACTGGCATT GTTTCTTGACAGTACATTTTTAGATCTGGCCTTTTCTTAACAAAATCTGTGCAAAAGATGCAGGTGGATGTCCCT TAAACTCTGAGTGGACTGTATCATTTGCTATTCTAAACCATTTTACACTTAAGTTAAAATAGTTTCTCTTCAGCT GTAAATAACAGGATACAGAATTAACAAGAGAAAATGTCTAACTTTTTAAGAAAAACCTTATTTTCTTCGGTTTTT GAAAAACATAATGGAAATAAAACAGGATATTGACATAATAGCACAAAATGACACTCTTCTAAAACTAAATGGGCA CAAGAGAATTTTCCTGGGAAAGTTCACATCAAAAAGAGTGAATGTGGTATATTTCTAAATGATATGGAAAATAGA GACAGATTTGTCCTTTACAGAAATTACTGAGTGTGAATAAAAACTTCAGATCCAAGAAATATATAATGAGAGATA TAATTTTTGTTAATAAGACAAAGGTAATATTTGGATACAAAGACACAAATGTATTGTGTTCAATTATTTTGT TGTCTTGAGATTTAATATTCTTTCCAAGAGCTTTTAATGAAGCAGAGAGCTAGTACTTCATTTTCACTGGATACA TTTTCAGCATCATGAGTTGTCACAGCCTCTGAGCCCCTGATCTGAAGCCAGAAGGGCTGAGTGTATTGTAAACTT ATTCTTGCATGTTGCTGTCTGGGAATGGACCACACTACAGCAGGTAGTTCTGGGGGCGATACTGCCGAAAGGCCC GAACACATGTATTTTGGCTGCAATTGAGGAACTTGGGATGCTATTAATTTTGTATTTCAGCAACTGCCCCTTCTC CTATCCCAAAGCACCAATTACTGCCCTCTGCCTCAGCAGTACCAGTATAAGATGACATTCCAAAGACTGGAGGCA ACTCAGCCTGAGTTAATTCACAAAATTATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA AATCTTCAGACACTCACTATTTTCATGAACAGTTACCCTCTGTCCCCACAACCAAAGACAACTCATGGCCTCCTT GCAATGATATCCCTGTCTGGGTCACTTTTTAAGCTTGTAACCGCCCCCCAGACTTATAATCTTAAATGTATTTT CCTTTGTTTAAGCTGCTGCTTCCTCTGTTTCATTGGATTGTGCCAGTTATCAGTGGCTCTTGGGTTCAAAGTAAT AAA

## 316/2682 FIGURE 294

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGPG GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLLLRKTFDLYANVRPCVSIEGYKTPYTDVNIVTIRENTE GEYSGIEHVIVDGVVQSIKLITEGASKRIAEFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAPDIAGKD MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD

TCGCCGAGTCGATCCGAGAGACTGAGGTCATCGACCCCCAGGACCTCCTAGAAGGCCGATACTTCTCCGGAGCCC TACCAGACGATGAGGATGTAGTGGGGCCCGGGCAGGAATCTGATGACTTTGAGCTGTCTGGCTCTGGAGATCTGG ATGACTTGGAAGACTCCATGATCGGCCCTGAAGTTGTCCATCCCTTGGTGCCTCTAGATAACCATATCCCTGAGA GGGCAGGGTCTGGGAGCCAAGTCCCCACCGAACCCAAGAAACTAGAGGAGAATGAGGTTATCCCCAAGAGAATCT CACCCGTTGAAGAGAGTGAGGATGTCCAACAAGGTGTCAATGTCCAGCACTGTGCAGGGCAGCAACATCTTTG AGAGAACGGAGGTCCTGGCAGCTCTGATTGTGGGTGGCATCGTGGGCATCCTCTTTGCCGTCTTCCTGATCCTAC TGCTCATGTACCGTATGAAGAAGAAGGATGAAGGCAGCTATGACCTGGGCAAGAAACCCATCTACAAGAAAGCCC TTTTGAAGGGTGGACATTAGGGTAGGGTGAGGTCAACCTAATACTGACTTGTCAGTATCTCCAGCTCTGATTACC TTTGAAGTGTTCAGAAGAGACATTGTCTTCTACTGTTCTGCCAGGTTCTTCTTGAGCTTTGGGCCTCAGTTGCCC TGGCAGAAAATGGATTCAACTTGGCCTTTCTGAAGGCAAGACTGGGATTGGATCACTTCTTAAACTTCCAGTTA AGAATCTAGGTCCGCCCTCAAGCCCATACTGACCATGCCTCATCCAGAGCTCCTCTGAAGCCAGGGGGCTAACGG CAGGAAATGGGGGAAGGAACTAGAACCACCTGCACCTTGAGATGTTTCTGTAAATGGGTACTTGTGATCACACTA CGGGAATCTCTGTGGTATATACCTGGGGCCATTCTAGGCTCTTTCAAGTGACTTTTTGGAAATCAACCTTTTTTAT TTGGGGGGGGGGGGGGAAAAGAGCTGAGAGTTTATGCTGAAATGGATTTATAGAATATTTGTAAATCTATTTT TAGTGTTTGTTCGTTTTTTTAACTGTTCATTCCTTTGTGCAGAGTGTATATCTCTGCCTGGGCAAGAGTGTGGAG GTTTTTTTTTTTATACTTTAAACCCCGCTCCTCATGGCCCTTGGCCCTTTCTGAAGCTGCTTCCTCTTATAAAATAG CTTTTGCCGAAACATAGTTTTTTTTTTAGCAGATCCCAAAATATAATGAAGGGGATGGTGGGATATTTGTGTCTGT GTTCTTATAATATATTATTATTCTTCCTTGGTTCTAGAAAAATAGATAAATATATTTTTTTCAGGAAATAGTGTG TCTTGCCCTGTTCCTGGTGCCTTCTGATGGGGCTGGAATAGTTGAGGTGGATGGTTCTACCCTTTCTGCCTTCTG TTTGGGACCCAGCTGGTGTTCTTTGGTTTGCTTTCTTCAGGCTCTAGGGCTGTGCTATCCAATACAGTAACCACA TCTAGAGGCGTCACTGTATGTAGTTCATGGCTACTGTACTGACAGCGAGAGCATGTCCATCTGTTGGACAGCACT ATTCTAGAGAACTAAACTGGCTTAACGAGTCACAGCCTCAGCTGTGCTGGGACGACCCTTGTCTCCCTGGGTAGG GAGGCCTGGTGGCTTAGCCTGGGCAGGTCGTGTCTCCTCCTGACCCCAGTGGCTGCGGTGAGGGGAACCACCCTC CCCCAGTGCCCTTCCCCTTGGGCTGTTGGAGTGAGCACCTCCTCTGTAGGCACCTCTCACACTGTTGTCTGTT 

# 318/2682 FIGURE 296

MAPARLFALLLIFVGGVAESIRETEVIDPQDLLEGRYFSGALPDDEDVVGPGQESDDFELSGSGDLDDLEDSMIG PEVVHPLVPLDNHIPERAGSGSQVPTEPKKLEENEVIPKRISPVEESEDVSNKVSMSSTVQGSNIFERTEVLAAL IVGGIVGILFAVFLILLLMYRMKKKDEGSYDLGKKPIYKKAPTNEFYA

CACTGCGCTTGCGCGGGTTGAGGGCGGTGGCTCAGTCTCCTGGAAAGGACCGTCCACCCCTCCGCGCTGGCGGTG GAGCCTAAGAGAACT**ATG**GCAACATCAGGTGACTGTCCCAGAAGTGAATCGCAGGGAGAAGAGCCTGCTGAGTGC AGTGAGGCGGGTCTCCTGCAGGAGGGAGTACAGCCAGAGGAGTTTGTGGCCATCGCGGACTACGCTGCCACCGAT GAGACCCAGCTCAGTTTTTTGAGAGGAGAAAAAATTCTTATCCTGAGACAAACCACTGCAGATTGGTGGTGGGGT GAGCGTGCGGGCTGCTGTGGGTACATTCCGGCAAACCATGTGGGGAAGCACGTGGATGAGTACGACCCCGAGGAC ACGTGGCAGGATGAAGAGTACTTCGGCAGCTATGGAACTCTGAAACTCCACTTGGAGATGTTGGCAGACCAGCCA CGAACAACTAAATACCACAGTGTCATCCTGCAGAATAAAGAATCCCTGACGGATAAAGTCATCCTGGACGTGGGC TGTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGT GAGATGGCACACCACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCACCGTGTACCAGCAGAAG TTCATGATCGAGTCCATCCTGTATGCCCGGGATGCCTGGCTGAAGGAGGACGGGGTCATTTGGCCCACCATGGCT GCGTTGCACCTTGTGCCCTGCAGTGCTGATAGGATTATCGTAGCCAAGGTGCTCTTCTGGGACAACGCGTACGAG TTCAACCTCAGCGCTCTGAAATCTTTAGCAGTTAAGGAGTTTTTTTCAAAGCCCAAGTATAACCACATTTTGAAA CCAGAAGACTGTCTCTGAACCGTGCACTATATTGCAGTTGGACATGAGAACCGTGCAAATTTCTGATCTAGAG ACCCTGAGGGGCGAGCTGCGCTTCGACATCAGGAAGGCGGGGACCCTGCACGGCTTCACGGCCTGGTTTAGCGTC CACTTCCAGAGCCTGCAGGAGGGGCAGCCGCCGCAGGTGCTCAGCACGGGGCCCTTCCACCCCACCACACACTGG AAGCAGACGCTGTTCATGATGGACGACCCAGTCCCTGTCCATACAGGAGACGTGGTCACGGGTTCAGTTGTTTG CAGAGAAACCCAGTGTGGAGAAGGCACATGTCTGTGGCTCTGAGCTGGGCTGTCACTTCCAGACAAGACCCCACA  ${\tt TCTCAAAAAGTTGGAGAAAAAGTCTTCCCCATCTGGAGA} {\tt TGAC} {\tt CAGTTGATGCTTTATTTGGAAAGCAGTGTGCAT}$ ATCTTGAGGGGTGATGAACACAAGCAAACCAAGTTGCACCTGGCTTCTGCACACTCCTGCGAAAGTCGGTGAACA TTCACTCCACATTGACCCCTCCCTAGCCTGGCAGGTGACGTCAGGGTCCTTCACAGACAAACACGCTTGGGCTCG GCAGGAGCTGCCGTGGCCACCCCCGCTGCCCAGTGTCTGCCCTCTAGAAGTAGGCTGTGTTTCCAGGTGTTCACC CGTGGTGCCCACAGTGCCGACCCGTGGCTGGGTCGGAGCTCCATGTTCCTAAGCTAGGTCTAGGTCTACACTCCT AGGACGCACGCATATCAGCCCGTGTACCCTGTGACAGTGACTGTCCCCACCTCCTGTGTTAGTGGTGCCCTTACT GCCGTCGCTCATCCACTCGTGTGGGACGTAGGATTGCACAGGGCTGTGCCAGTGGCGTGTAGGGAACACTGCCCT GGCTCAGCGTGCGAGCTAAGGTGGCGATGTATGCGATGGGACTCTGCATGGGATAGTACAGTTGTGTAGACGTCT 

## 320/2682 FIGURE 298

MATSGDCPRSESQGEEPAECSEAGLLQEGVQPEEFVAIADYAATDETQLSFLRGEKILILRQTTADWWWGERAGC
CGYIPANHVGKHVDEYDPEDTWQDEEYFGSYGTLKLHLEMLADQPRTTKYHSVILQNKESLTDKVILDVGCGTGI
ISLFCAHYARPRAVYAVEASEMAQHTGQLVLQNGFADIITVYQQKVEDVVLPEKVDVLVSEWMGTCLLFEFMIES
ILYARDAWLKEDGVIWPTMAALHLVPCSADRIIVAKVLFWDNAYEFNLSALKSLAVKEFFSKPKYNHILKPEDCL
SEPCTILQLDMRTVQISDLETLRGELRFDIRKAGTLHGFTAWFSVHFQSLQEGQPPQVLSTGPFHPTTHWKQTLF
MMDDPVPVHTGDVVTGSVVLQRNPVWRRHMSVALSWAVTSRQDPTSQKVGEKVFPIWR

AATTCCGCGGAATCATCGGAATCCTTCACCATCGCATCCAGCCCGGCCCAGCGTCGGCGAGGCAATGATCCTCTC ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCCACCATTT GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCCCTGGAGGAAGAAGAGGATGGAGAGGAGCTCATTGGA GATGGCATGGAAAGGGACTACCGCGCCATCCCAGAGCTGGACGCCTATGAGGCCGAGGGACTGGCTCTGGATGAT GAGGACGTAGAGGAGCTGACGGCCAGTCGAAGGGAGGCAGCAGACGGGCCATGCGGCACGGTGACCGGGAGCTGG CCGGGGCTGGGCGATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACGAGGAGGACGCCCTGCCCGCAAGC GCCGCCAGTGGAGCCGGCACGGAGGACGGCGAGGAGGACGAGCAGATGATTGAGAGCATCGAGAACCTGGAGGAT CTCAAAGGCCACTCTGTGCGCGAGTGGGTGAGCATGGCGGGCCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC TTCCTGCGCACTCACGTCGACAGCCACGGCCACAACGTCTTCAAGGAGCGCATCAGCGACATGTGCAAAGAGAAC CCGGCGGAGCTGCTGCAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC CTGAACCAGCTGATCCGCACCAGTGGGGTGACCAGCTGCACTGGCGTCCTGCCCCAGCTCAGCATGGTCAAG TACAACTGCAACAAGTGCAATTTCGTCCTGGGTCCTTTCTGCCAGTCCCAGAACCAGGAGGTGAAACCAGGCTCC TGTCCTGAGTGCCAGTCGGCCGGCCCCTTTGAGGTCAACATGGAGGAGACCATCTATCAGAACTACCAGCGTATC CGAATCCAGGAGAGTCCAGGCAAAGTGGCGGCTCGGCGGCTGCCCCGCTCCAAGGACGCCATTCTCCTCGCAGAT CTGGTGGACAGCTGCAACGCAGGAGACGAGATAGAGCTGACTGGCATCTATCACAACAACTATGATGGCTCCCTC AACACTGCCAATGGCTTCCCTGTCTTTGCCACTGTCATCCTAGCCAACCACGTGGCCAAGAAGGACAACAAGGTT GCTGTAGGGGAACTGACCGATGAAGATGTGAAGATGATCACTAGCCTCTCCAAGGATCAGCAGATCGGAGAGAAG ATCTTTGCCAGCATTGCTCCTTCCATCTATGGTCATGAAGACATCAAGAGAGGCCCTGCTCTGGCCCTGTTCGGA GGGGAGCCCAAAAACCCAGGTGGCAAGCACAAGGTACGTGGTGATATCAACGTGCTCTTGTGCGGAGACCCTGGC ACAGCGAAGTCGCAGTTTCTCAAGTATATTGAGAAAGTGTCCAGCCGAGCCATCTTCACCACTGGCCAGGGGGGCG TCGGCTGTGGCCGTCACGGCGTATGTCCAGCGGCACCCTGTCAGCAGGGAGTGGACCTTGGAGGCTGGGGCCCTG GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGCTGGCATCGTCACCTCCCTGCAGGCTCGCTGCACGGTC ATTGCTGCCGCCAACCCCATAGGAGGCGCTACGACCCCTCGCTGACTTTCTCTGAGAACGTGGACCTCACAGAG CCCATCATCTCACGCTTTGACATCCTGTGTGTGTGAGGGACACCGTGGACCCAGTCCAGGACGAGATGCTGGCC CGCTTCGTGGTGGGCAGCCACGTCAGACACCCCCAGCAACAAGGAGGAGGAGGGGCTGGCCAATGGCAGCGCT GCTGAGCCCGCCATGCCCAACACGTATGGCGTGGAGCCCCTGCCCCAGGAGGTCCTGAAGAAGTACATCATCTAC GCCAAGGAGAGGTCCACCCGAAGCTCAACCAGATGGACCAGGACAAGGTGGCCAAGATGTACAGTGACCTGAGG AAAGAATCTATGGCGACAGGCAGCATCCCCATTACGGTGCGGCACATCGAGTCCATGAGTCATGGCGGAGGCCCA CGCGCGCATCCATCTGCGGGACTATGTGATCGAAGACGACGTCAACATGGCCATCCGCGTGATGCTGGAGAGCTT CATAGACACAGAAGTTCAGCGTCATCGCAGCATGCGCAAGACTTTTGCCCGCTACCTTTCATTCCGGCGTGAC AACAATGAGCTGTTGCTCTTCATACTGAAGCAGTTAGTGGCAGAGCAGGTGACATATCAGCGCAACCGCTTTGGG GCCCAGCAGGACACTATTGAGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCCACAACCTC TCTGCATTTTATGACAGTGAGCTCTTCAGGATGAACAAGTTCAGCCACGACCTGAAAAGGAAAATGATCCTGCAG  $\texttt{CAGTTC} \underline{\textbf{TGA}} \texttt{GGCCCTATGCCATCATAAGGATTCCTTGGGATTCTGGTTTGGGGTGGTCAGTGCCCTCTGTGCTT}$ TATGGACACAAAACCAGAGCACTTGATGAACTCGGGGTACTAGGGTCAGGGCTTATAGCAGGATGTCTGGCTGCA TTACTTGGTTGCTGAACATCTTGCCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG TTCAGGATGCCTGCGTGTGGTTTAGGTGTTAGCCTTCTTACATGGATGTCAGGAGAGCTGCTGCCCTCTTGGCGT GAGTTGCGTATTCAGGCTGCTTTTGCTCGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGTAATCGTTTTCAGTC TCCTGCAGGTTTCTGTGCCCCTGTGGTGGAAGAGGCACGACAGTGCCAGCGCAGCGTTCTGGGCTCCTCAGTCGC AAAA

## 322/2682 FIGURE 300

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTEGPLEEEEDGEELIGDGMERDYRAI PELDAYEAEGLALDDEDVEELTASRREAADGPCGTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGAGTEDG EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED LAAREHVLAYFLPEAPAELLQIFDEAALEVVLAMYPKYDRITNHIHVRISHLPLVEELRSLRQLHLNQLIRTSGV VTSCTGVLPQLSMVKYNCNKCNFVLGPFCQSQNQEVKPGSCPECQSAGPFEVNMEETIYQNYQRIRIQESPGKVA ARRLPRSKDAILLADLVDSCNAGDEIELTGIYHNNYDGSLNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV KMITSLSKDQQIGEKIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVRGDINVLLCGDPGTAKSQFLKYI EKVSSRAIFTTGQGASAVAVTAYVQRHPVSREWTLEAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISI SKAGIVTSLQARCTVIAAANPIGGRYDPSLTFSENVDLTEPIISRFDILCVVRDTVDPVQDEMLARFVVGSHVRH HPSNKEEEGLANGSAAEPAMPNTYGVEPLPQEVLKKYIIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRHTEVQRHRSMRKTFARYLSFRRDNNELLLFILK QLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHNLSAFYDSELFRMNKFSHDLKRKMILQQF

GCGGCGGCGCCTCGGCTGAAGAAAGAAGGTGGGAGCGGAGAGCGCAGGCGTGAAATCTTCCCAAGGCTGCAGAC AGGCACTGGGGCCCCTACAGGCGGGTTCACGTTTGGCACTGCAAAGACGGCAACAACCACCTGCTACAGGGTT TTCTTTCTCCACCTCTGGCACTGGAGGGTTTAATTTTGGGGCTCCCTTCCAACCAGCCACAAGTACCCCTTCCAC CGGCCTGTTCTCACTTGCCACCCAGACTCCGGCCACACAGACGACAGGCTTCACTTTTGGAACAGCGACTCTTGC TTCGGGGGGAACTGGATTTTCTTTGGGGATCGGTGCTTCAAAGCTCAACTTGAGCAACAGCTGCCACCCCAGC CATGGCAAACCCCAGCGGCTTTGGGCTGGGCAGCAGCAACCTCACTAATGCCATATCGAGCACCGTCACCTCCAG CCAGGGCACAGCACCCACCGGCTTTGTGTTTGGCCCCTCCACCACCTCTGTGGCTCCAGCTACCACATCTGGAGG CTTCTCATTCACTGGTGGAAGCACGGCCCAACCCTCCGGTTTCAACATTGGCTCAGCAGGGAATTCAGCCCAGCC TCCCACACCCACACCATCACCAGTACTGGGCCCAGCCTCTTTGCGTCAATAGCAACTGCTCCAACCTCATC TGCCACCACTGGACTCTCCCTCTGTACCCCTGTGACCACAGCGGCCCCCCACTGCTGGGACACAGGGCTTCAG CTTAAAGGCACCTGGAGCAGCTTCCGGCACCTCCACAACAACATCCACCGCTGCCACCGCCACCGCCACCACCAC CACCAGCAGCAGCACCACCGGCTTTGCCTTGAATTTAAAACCACTGGCGCCAGCCGGGATCCCCAGCAATACAGC AGCTGCCGTGACCGCTCCACCTGGCCCTGGCGCAGCTGCAGGGGGGCGCTGCCAGCTCCGCCATGACCTACGCGCA GCTGGAGAGCCTGATCAACAAATGGAGCCTGGAGCTAGAGGACCAGGAGCGGCACTTCCTCCAGCAGGCCACCCA GGTCAACGCCTGGGACCGCACGCTGATCGAGAATGGAGAAAAGATCACCAGCCTGCACCGCGAGGTGGAGAAGGT GAAGCTGGACCAGAAGAGGCTGGACCAGGAGCTCGACTTCATCCTGTCCCAGCAGAAGGAGCTGGAAGACCTGCT GAGCCCACTGGAGGAGTTGGTCAAGGAGCAGAGCGGGACCATCTACCTGCAGCACGCGGATGAGGAGCGTGAGAA AACCTACAAGCTGGCTGAGAACATCGACGCACAGCTCAAGCGCATGGCCCAGGATCTCAAGGACATCATCGAGCA CCTGAACACGTCCGGGGCCCCCGCCGACACCAGTGACCCACTGCAGCAGATCTGCAAGATCCTCAATGCGCACAT GGACTCACTGCAGTGGATCGACCAGAACTCGGCCCTGCTGCAGAGGAAGGTGGAGGAGGTGACCAAGGTGTGCGA GGGCCGGCGCAAGGAGCAGGAGCGCAGCTTCCGGATCACCTTTGAC<u>TGA</u>GCGACAGCAGCCCTGGGGCCCGCAGG TTTCTTTCTTTCACATGACTGCCCTTGACATGATCGCTGTGTGCTTTTGCGTTTTTCCATTTAGGAGGGTATTCTG GGCCTTCTGCCCAGGCAGCAGCCTCATGGGTGTGGCTTCTGTGGCTTTCATTTGAGTATCTTTGGCCCCCTTTTCA GTCGTGGGGGCCACCCCCCAAAGCATAGTCATGGGTGTCATGAAAAAATACCAAATGTAAGAAACCTCC AAGTCAGGGCGCAGTGGCTCACCCCTGTAATCTCAGCACTTTGGGTGGCCAAGGCGGGCAGATGACTTGAGGTCA GGAGTTCGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAATTAGTCAGGTGTGGT GGACGCCTGTGATCTCAATCTCAGCTACTCGGGAGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGTGTTGCA AAACTCCCAGGAGACAGCAGCCTAGTTTTCGAGTGTGAGCTTGTGCTTGTGAAAGCTAACCATGCTAACCACCAA GGCAAAGCAGCACAGTGTGAATAGAACAGAGCGGGATCAAGAATTTCACAGAAGACAGGTCAGCTGAGGGGCCTG CTTGGGCCTCACCTCCTAGGAAGCCTTCCCAGCTACCCGAAGCTCAGGTGGCCTTCTTGCAGGTCCCCGTAGC ACCCTGAGCCTGTACCTTGGGTGGCACTTGTTATGCTATCCTGTGCTAGCCGTTTGTGCCTCGTCTCGCTGTTAG ATTGTGAGTTCCCATGGGCAGAGACCCACTGTCGTTCCCCGTGTGTCCCCAGCCCGGTCCCTGTCACATTTGTTA AATGAAAGAACAATGAAGCCCAGTGTAACGTCAGTCCACAGAAATAGCCACAGCTTCCAGTGGTGGCCGTAGACT TGGCTCGGAACTTAGTGGCACCAGAGTAACTCTAGTCAGTTACAGTAAAATCCACTGTGTGGGAAGGCAGAAGC TAGCGGTTGTATCCCAAGCATCTTTTGTATTTGTCTTTATACTTTGCTGAAATTCTCTGAAATACCTATTACTGTA 

# 324/2682 FIGURE 302

MSGFNFGGTGAPTGGFTFGTAKTATTTPATGFSFSTSGTGGFNFGAPFQPATSTPSTGLFSLATQTPATQTTGFT
FGTATLASGGTGFSLGIGASKLNLSNTAATPAMANPSGFGLGSSNLTNAISSTVTSSQGTAPTGFVFGPSTTSVA
PATTSGGFSFTGGSTAQPSGFNIGSAGNSAQPTAPATLPFTPATPAATTAGATQPAAPTPTATITSTGPSLFASI
ATAPTSSATTGLSLCTPVTTAGAPTAGTQGFSLKAPGAASGTSTTTSTAATATATTTTSSSTTGFALNLKPLAPA
GIPSNTAAAVTAPPGPGAAAGAAASSAMTYAQLESLINKWSLELEDQERHFLQQATQVNAWDRTLIENGEKITSL
HREVEKVKLDQKRLDQELDFILSQQKELEDLLSPLEELVKEQSGTIYLQHADEEREKTYKLAENIDAQLKRMAQD
LKDIIEHLNTSGAPADTSDPLQQICKILNAHMDSLQWIDQNSALLQRKVEEVTKVCEGRRKEQERSFRITFD

#### 325/2682 FIGURE 303

CGCAGGGACCGTGCTCCGCCGCTCTCCGCCGCATCTTCCACCCTCGCCGCCGCCGCAGCTCCCCGCGCTCGTGCCA  $\tt CCGCCGCCGCGTCCACCCTCAGCGCCACCGCC{\color{red} \underline{\textbf{ATC}}} CGGGAGATCGTGCACCTGCAGGCCGGCCAGTGCGGCAACC$ AGATCGGGGCCAAGTTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCCACAGGCACATACCATGGGGACA GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGC TGGTGGACCTGGAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCTTCGGTCAGATCTTTCGGCCGGACAACT TCGTGTTTGGCCAATCCGGAGCCGGCAACAACTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACG CTGTCCTGGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCCAGCTGACCCACTCGCTGG GGGGTGGCACGGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCCCAGACCGCATCATGA ACCAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCACCC TCAAGCTGACCACCCCACCTACGGGGACCTCAACCACCTGGTGTCGGCCACCATGAGCGGGGTCACCACCTGCC TGCGCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCAACATGGTTCCCTTTCCTCGCCTGCACT CCCAGCAGATGTTCGATGCCAAGAACATGATGGCGGCGTGCGACCCGCGCCACGGCCGCTACCTGACCGTGGCCG CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGCAGAGCAAGAACAGCAGCT ACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTGAAGATGGCCG CGACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCC GGCGCAAGGCCTTCTTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACA TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGGCGG AGGAGGAGGTGGCC<u>TAG</u>GCTGCTCCCATCGCTTCCCACCTGTCCCCTCGAGGCTTCTGACCTTTGATCCGCTAGG CCCCCCATCTCTGAACCCTAGAGCCCCGCTTTCCCTCCAAGGCTGACTCCCCGCTGACCCTAACAATACCTTTGG AGCTCGCTTTACCTCTGGCTACTTCATCTCCGACCCTGGCTCCCCTTTGAGCCCTAATTTATCTTTAACCCCCTT GAGCTCTTCCAACCTTGACATTCCCAGGAGGAGCCCCGCTTCACCCCTTCTGACTCTGGAAACCGCACCTTTAAC TTTGCAGACCTTCCTTCACCCTGACTTCTGCTTCACCTTTGACCTCTGCCCCCCATGAATCCCATTTTACCTCT AGACCTATAAGTTCTGGTTTATGTTTGACCCCTCCCTCTGAGCTGCACCTTCACCGCTGACCTTGCCTCACCTTTA ACCCCCACCTGAGCCCCAGCTCCTACCTCTGACCCCAACTTCTCTTTGATCTCTGAATCCCCTCTGACTCCAAC GAGCTGCAGTTCACCTTTGACCTTGCCTCACCTTTCACCCCCCACCCCCACAGCGTCAGCTCCTACCTCTGACC CCAGCTTCTCTGATTCCCACAGGCCCCATGCATCCTCCCTGCCTCACTCCCTCAGCCCCTGCCGACCTTAGC 

## 326/2682 FIGURE 304

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVLDVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL LISKIREEFPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL NHLVSATMSGVTTCLRFFGQLNADLRKLAVNMVPFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEGEFEEEAEEEVA

#### 327/2682 FIGURE 305

CGGCCGCGTCCTCAAGCCGGCACCTGAGCGGCGGAGACGGCTGTAGCACAAGGATCTGCATCTCCA**ATC**GATACT GAGGGGTTTGGTGAGCTCCTTCAGCAAGCTGAACAGCTTGCTGCTGAGACTGAGGGCATCTCAGAGCTTCCCCAT GAGACGGCAGATGTCAAGGCGTCAGTTCTCCTCGGGTCTCGGGGACTTGACATATCCCACATCTCCCAGCGATTG GAGAGTCTGAGTGCAGCCACCACCTTTGAGCCTCTTGAGCCTGTGAAGGACACTGACATTCAGGGCTTCCTGAAG AATGAGAAGGACAATGCCCTGCTGTCTGCCATCGAAGAGTCCCGGAAGAGGACCTTCGGCATGGCTGAGGAGTAC CATCGGGAGTCAATGTTGGTTGAGTGGGAGCAAGTGAAACAGCGAATTCTGCACACACTGCTGGCATCAGGAGAA GACGCCCTTGACTTTACTCAAGAAAGCGAGCCAAGCTACATCAGTGATGTGGGGACCCCCTGGTCGAAGCTCTCTG GATAACATCGAGATGGCCTATGCGCGGCAAATTTATATCTATAATGAGAAAATTGTAAATGGACACCTGCAGCCT AACCTGGTGGACCTTTGTGCTTCCGTCGCAGAGCTGGATGATAAGAGCATTTCCGACATGTGGACCATGGTAAAA CAAATGACAGACGTGTTGTTGACACCGGCAACGGATGCCCTGAAGAACCGCAGCAGCGTGGAAGTGCGCATGGAG TTTGTCAGGCAGGCCTTGGCGTACCTTGAGCAGAGTTATAAGAATTACACCCTTGTGACTGTCTTTGGAAATTTG CATCAGGCCCAGCTGGGCGGGTGCCTGGGACTTACCAATTGGTTCGAAGTTTCCTGAACATTAAACTGCCAGCT  $\tt CCCTTGCCTGGACTACAGGATGGAGGGTGGAAGGCCATCCTGTGTGGGCGCTAATTTACTACTGCATGCGCTGT$ GGAGACCTGCTTGCCGCTTCACAGGTAGTTAATCGAGCCCAGCACCAGCTGGGAGAGTTTAAAACCTGGTTCCAG GAGTACATGAACAGCAAGGACAGAAGATTGTCCCCAGCTACGGAAAACAAGCTCCGGCTGCATTACCGTAGGGCC CTCAGGAACAATACAGATCCCTACAAGCGGGCCGTGTACTGTATCATTGGCAGATGTGACGTCACCGACAACCAG AGTGAAGTGGCGGACAAAACTGAGGATTACCTGTGGCTGAAGTTGAACCAAGTGTGTTTTGACGACGATGGCACC AGCTCCCCACAAGACAGGCTCACTCTCTCACAGTTCCAGAAGCAGTTGTTGGAAGACTATGGCGAGTCCCACTTT ACGGTGAACCAGCAACCCTTCCTCACTTCCAAGTCCTGTTCCTGACAGCGCAGTTTGAAGCAGCAGTTGCCTTT CTTTTCCGCATGGAGCGGCTGCGCTGCCATGCTGTCCATGTAGCACTGGTGCTGTTTGAGCTGAAGCTGCTTTTA GTGCGGCTCCTCATGCTGTACACCCGGAAGTTTGAGTCCACGGACCCAAGGGAGGCCCTCCAGTACTTCTATTTC GAGTTCGATATGATTCTTGGGAAACTAGAGAATGACGGAAGTAGAAAGCCTGGAGTCATAGATAAGTTTACTAGT GACACAAAGCCTATTATCAACAAAGTTGCTTCTGTGGCAGAAAATAAAGGACTGTTTGAAGAGGCCAGCAAAGCTG TATGACCTTGCCAAGAATGCTGACAAGGTACTGGAGCTGATGAACAAACTGCTGAGCCCTGTCGTCCCCCAGATC AGTGCCCCGCAATCCAACAAGGAGAGGCTGAAGAACATGGCACTCTCCATTGCCGAACGGTATAGGGCTCAAGGA ATAAGCGCAAATAAATTTGTGGACTCCACGTTCTATCTTCTTTTGGACTTGATCACCTTTTTTGACGAGTATCAT AGTGGTCATATTGATAGAGCTTTTGATATCATTGAGCGCTTGAAGCTGGTGCCCCTGAATCAGGAAAGTGTGGAA GAGAGAGTGGCTGCTTTCAGAAATTTCAGTGATGAAATCAGGCACAACCTCTCAGAAGTGCTTCTTGCCACCATG AACATCTTGTTCACACAGTTTAAGAGGCTCAAGGGGACAAGTCCATCCTCGTCATCCAGGCCCCAGCGAGTCATC GAGGACCGCGACTCTCAACTCCGAAGTCAAGCCCGCACTCTGATTACCTTTGCTGGAATGATACCATACCGAACG TCTGGGGACACCAATGCGAGGCTGGTGCAGATGGAGTCCTCATGAATTAAGTGCCATGCTTTGTGGGAGTCTGG GTCGGCACACTGTCAGTACATCAGGCACATGGGCCCACTAGGCTGGGGTTTCTGGTTTTGTTTCTGTTGTTTTT GTTTTGGTTTCTGTATTATGTATTTTTGTCAACGCCAATAAATTTCTTTGATTTGT

## 328/2682 FIGURE 306

MDTEGFGELLQQAEQLAAETEGISELPHVERNLQEIQQAGERLRSRTLTRTSQETADVKASVLLGSRGLDISHIS QRLESLSAATTFEPLEPVKDTDIQGFLKNEKDNALLSAIEESRKRTFGMAEEYHRESMLVEWEQVKQRILHTLLA SGEDALDFTQESEPSYISDVGPPGRSSLDNIEMAYARQIYIYNEKIVNGHLQPNLVDLCASVAELDDKSISDMWT MVKQMTDVLLTPATDALKNRSSVEVRMEFVRQALAYLEQSYKNYTLVTVFGNLHQAQLGGVPGTYQLVRSFLNIK LPAPLPGLQDGEVEGHPVWALIYYCMRCGDLLAASQVVNRAQHQLGEFKTWFQEYMNSKDRRLSPATENKLRLHY RRALRNNTDPYKRAVYCIIGRCDVTDNQSEVADKTEDYLWLKLNQVCFDDDGTSSPQDRLTLSQFQKQLLEDYGE SHFTVNQQPFLYFQVLFLTAQFEAAVAFLFRMERLRCHAVHVALVLFELKLLLKSSGQSAQLLSHEPGDPPCLRR LNFVRLLMLYTRKFESTDPREALQYFYFLRDEKDSQGENMFLRCVSELVIESREFDMILGKLENDGSRKPGVIDK FTSDTKPIINKVASVAENKGLFEEAAKLYDLAKNADKVLELMNKLLSPVVPQISAPQSNKERLKNMALSIAERYR AQGISANKFVDSTFYLLDLITFFDEYHSGHIDRAFDIIERLKLVPLNQESVEERVAAFRNFSDEIRHNLSEVLL ATMNILFTQFKRLKGTSPSSSSSRPQRVIEDRDSQLRSQARTLITFAGMIPYRTSGDTNARLVQMEVLMN

### 329/2682 FIGURE 307

CCCCAGCGAGGCTCCGGGAGCCCTTGCCTGCGGGGGTCCGGGGACTCGAGCCGGCCTCCGCCCCCGGACGCACA GCCAGCGTGGTCCCCGCGTGCAACGCGAGCGCCGGGGAGTGGCTCCTGCTTTGCCCCTCGTGGGGGCCCAA GACCAGTCTGCAAACTCCATCCGCCGGCTGGAAGAAGTCGCGGAGCCGGCACCAAACCCGCAGCGTCTTCCCGC GCGGATCCCGGGACTTAAAAAGCCGGGGCCACCCCGGCCCAGGACGGG<mark>ATG</mark>CGGGTCGGTCCGGTGCGCTCTGCC ATGAGCGGCCCCCGCGCCCCGGCCCGGCCCTGCTCTTCCCAGCCACCCGAGGCGTCCCGGCCAAACGCCTG CTGGACGCCGACGACGCGGCGGCTGTGGCGGCCAAGTGCCCGCGCCTCTCCGAGTGCTCCAGCCCCCCGGACTAC CTCAGCCCCCCGGCTCGCCCTGCAGCCCGCAGCCCCGCCTGCCGCTCCGGGGGCCCGGCGGAGGCTCCGGGAGC GCGCCGGGGCCCAGCCGCATCGCCGACTACCTGCTGCTGCCCCTAGCCGAGCGCGAGCATGTGTCCCGGGCGCTG TGCATCCACACTGGACGCGAGCTGCGCTGCAAGGTGTTTCCCATTAAACACTACCAGGACAAAATCAGGCCTTAC ATCCAGCTGCCATCGCACAGCAACATTACTGGCATTGTGGAAGTGATCCTTGGGGAAACCAAGGCCTATGTCTTC TTTGAGAAGGACTTTGGGGACATGCACTCCTATGTGCGAAGCCGGAAGAGGCTGCGGGAAGAGGAAGCCGCCCGG CTCTTCAAGCAGATTGTCTCCGCCGTCGCCCACTGCCACCAGTCAGCCATCGTGCTGGGGGGACCTGAAGCTTAGG GAAGATGATGCTTTGTCAGACAAACATGGCTGCCCAGCCTACGTGAGCCCTGAGATCCTCAACACCACTGGGACC TACTCCGGAAAGGCTGCGGACGTTTGGAGCCTGGGGGTGATGCTCTACACCCTTCTGGTTGGACGATACCCCTTC CATGACTCAGACCCCAGTGCCCTTTTCTCCAAAATTCGGCGTGGACAGTTCTGCATTCCTGAGCACATTTCCCCC AAAGCCAGGTGCCTCATTCGCAGCCTCTTGAGACGGGAGCCCTCCGAGAGACTCACTGCCCCCGAGATCCTACTG CACCCCTGGTTTGAGTCCGTCTTGGAACCCGGGTACATCGACTCAGAAATAGGAACTTCAGACCAGATTGTTCCA  ${\tt GAGTACCAGGAGGACAGTGACATTAGTTCCTTCTTCTGC} \underline{{\tt TAA}}{\tt TCCCCAAAACCTCAGAAACCTCATAATTCTTAA}$ GAAAGCTGCTGAACTCGGCATGGCGCCTCCTCTCTCTGTTGGGATGAGTGACTTTATTGATTTGAGCAGCATAT GCTGTGATTGGCTGCCCTGCAAATTTGTTTCCCTTAAGGAACCCTCACCAACTATCTCTGCTGGATTTGGGAGTT CCGCATCTTTTGTGGAGGGCAGAGTATGGACATCTTACACCCGGTGGTCAAGTGTGTAATAAACTTGAGCATTCG AATGGGAGAAAAGCAAATCGCACAATGACATATTTTGAGTAATAACCGTATTTTTCACAGGGTGACAAATTGGG CCAATAAATCTGCCATCTTTGAACTCATCTTTGGTGGCTAGACTGCTACGGCAGCTTCTCTGATGGGAAAGTTCC TTTTTTGGCTTAACACTCACCCTTTCTTCACACTCACATTTACCAATGACTCTGCTCCGTTTTTTGGAGCAGACTG TTTTAAGTTGCTCAGGAGCCTGATGGAACCATGAACCGAGACTCTTCTCTGTTTCCTGCCAAGACCTCATCTGCA CTAATGCCTTCTCCCTGACCTTGACACTTCCCCCTTTAGCTATAAAAGCACTTACCAGCCGAACGTGGAACAGTA TCACAAAAGATTCCATCTCCCAACGATTTCAGAACTCTGAGCTCAGAGAGACTCCAGATTTTAAAAAAATAATTTG TTAAACATCTTTGTGCTTTGAAGAGAGTGAATTTTGGATAGTCTTGTGATTCTCAGACTAACTTCCAGAATTATA CTTTAACCCCTCCCAGATATGGTCCGCCTTTGGCATTGTGTACATCTGCAGTTTTTGCATGGTGGGTTGTTAAT ATTTCAAATGTGTGGTTTATGAATACGTCTGTATAATCGGCTTCTGGAGTGAAACAGCAAACCCCAAATCTTCAA AGTTGGAAGGAACTTTAAAAATCATCCGGTCCAATCTCTTTCCTCTTTCTGCCACCTCCCAAGGCAGAAATCCCC AAGATGGAGCTTAATGGAGAAATTGCAACTTTCATTAAAAAACAAATTCAGATGAAATATCAGTAACTGTCTTGG ACAGTGCTGAAATCAGGTGGTTAAACGGGTAAACAAAATATACTGTATTTTGAGAAATGGCACAAAAAACAGGCAG TCATCTTTAAGGGCTATGCCTAGGCAAACTACTAACATGCATTGTGAGAATGCCGTGTATACCTCACGTACTGTG TACTTTGTACATATTTTTACCTTTTATACCTATGTTCGATTTTGTTTTGTTTTGTTCTGGCTTTGAGGCTTGTT TTGTTGTCTGTCTGTCTGAATAACCTGCGTGTCTAAAACCACGTGAAATGTGAATGATTATTGGCAATATTAC CTTGACAGAATCATGGGACTTTGAGAAGAGGGAGGACAGAGGCCTCTGTCGCACTAACGCTCTCGTGGTTGCTCG ACTGTTGTATCTGTGATACATTATCCGACTAAGGACTCTGGGCTGGCAGGGCCTTCTGCCGGGAAAGCTAGAAAC ACTAGGTTCTTCCTGTACATACGTGTATATATGTGAACAGTGAGATGGCCGTTTCTGACTTGTAGAGAAATTTTA ATAAACCTGGTTTCGTA

# 330/2682 FIGURE 308

MRVGPVRSAMSGASQPRGPALLFPATRGVPAKRLLDADDAAAVAAKCPRLSECSSPPDYLSPPGSPCSPQPPPAA PGAGGGSGSAPGPSRIADYLLLPLAEREHVSRALCIHTGRELRCKVFPIKHYQDKIRPYIQLPSHSNITGIVEVI LGETKAYVFFEKDFGDMHSYVRSRKRLREEEAARLFKQIVSAVAHCHQSAIVLGDLKLRKFVFSTEERTQLRLES LEDTHIMKGEDDALSDKHGCPAYVSPEILNTTGTYSGKAADVWSLGVMLYTLLVGRYPFHDSDPSALFSKIRRGQ FCIPEHISPKARCLIRSLLRREPSERLTAPEILLHPWFESVLEPGYIDSEIGTSDQIVPEYQEDSDISSFFC

### 331/2682 FIGURE 309

CCTCCATAGCCTCAGAGATAAAGGCAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGCTGCAGAGCTCGAAA GGCAGAGATTCGCTTGTGTGGGTTAAAAGTCAGCATTTCCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG TACCACCGACTGCACTGGGGGGGCCCTCTGGGGGGAAAGGCTCCACGGGGCAGGGATACATCTCGAGGCCAGTC  ${\tt AAGAACTTCGGGAGCTCGGTACCAGAGTGTAACAACCACGGGTGTAAGTGCCATCTGG} {\color{red} {\bf TAG}{\bf CTGTAGATTCTGGC} \\$ CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCACTTGTCACCAGAATGTTCTCTGGCTTCAGATCTCGGTGAAC GATGCAATTGGCATGAAGGAAATCTAGGCCTCTTAGAAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA GCCTGGTGGGGGTGCCTTGTCCAGATATGTCCTTAGGTCCTGGTCTACATGCTCAAACACCAGGGTTACCTTGAT CTCCCGGTCAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAAAGCCTCCAGTCG CCTCAGTAAAGCCACCTCACGAACTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCATTGGGGACTCTCAC ACTCTTGAGGGCCACAAAGTGGCCACTGTGGGGATCACGGGCCTTGTACACTGTCCCATAGGCACCGACACCAAT TTCAGCCACTGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCCTCACGCCAGCCCGGGGTGCTGT GGGGGCGCCCGTTATCGGGGCCCCGGAGCCGGTTCCTACGGCCCCATACACCCGAGCTCGGTCCGGAGCAG

# 332/2682 FIGURE 310

MSTGVAYVDCRRTSGARYQSVTTTGVSAIW

## 333/2682 FIGURE 311

CGCGATTCTCAGGGATTGATCCGCCTCTTCAGGTAAGTTATCTTCCGGCCCCGTACCACTGTGCCACAGGCGCAG CCCGCTTCCTCAGGTGCCCTATCCCGCGCAGAAGACCACGGCTTCACAGAGTGTTATTTAAGGGCGTGGCCAGCG GAACATCCCGCCCCATTCTGTGACGCACGGGGTGGCGCGCGTGGGACCCGAGGGGTGGGGCTGGGTTTAGTAGGA GACCTGGGGCAAGGCCCCCTGTGGACGACCATCTGCCAGCTTCTCTCGTTCCGTCGATTGGGAGGAGCGGTGGCG ACCTCGGCCTTCAGTGTTTCCGACGGAGTGA**ATG**GCGGCGGCGGCTGGGATGCTGCTGCTGGGCTTGCTGCAGGC GGGTGGGTCGGTGCTGGGCCAGGCGATGGAGAAGGTGACAGGCGGCAACCTCTTGTCCATGCTGATCGCCTG CGCCTTCACCCTCAGCCTGGTCTACCTGATCCGTCTGGCCGCCGGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA AAGTCCTCCATACATTTCTCCCCCAATTCCATTCCTTGGGCATGCCATAGCATTTGGGAAAAGTCCAATTGAATT GGGGAGTGATGCTGCTGCACTGCTTTTTAATAGTAAAAATGAAGACCTGAATGCAGAAGATGTCTACAGTCGCCT GACAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGGAGCAGAAAAAATGTT AAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA GAGTTGGGGAGAAAGTGGAGAAAAAAATGTGTTTGAAGCTCTTTCTGAGCTCATAATTTTAACAGCTAGCCATTG CAGCCATGCAGCCTGGCTCTTACCAGGTTGGCTGCCTTTGCCTAGTTTCAGACGCAGGGACAGAGCTCATCGGGA AATCAAGGATATTTTCTATAAGGCAATCCAGAAACGCAGACAGTCTCAAGAAAAATTGATGACATTCTCCAAAC TTTACTAGATGCTACATACAAGGATGGGCGTCCTTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT CTTGGCAGGGCAGCATACATCCTCAACTACTAGTGCTTGGATGGGCTTCTTTTTGGCCAGAGACAAAACACTTCA AAAAAATGTTATTTAGAACAGAAAACAGTCTGTGGAGAGAATCTGCCTCCTTTAACTTATGACCAGCTCAAGGA TCTAAATTTACTTGATCGCTGTATAAAAGAAACATTAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC CAGAACTCCTCAGACTGTGGCAGGGTATACCATTCCTCCAGGACATCAGGTGTGTTTTCTCCCACTGTCAATCA AAGACTTAAAGACTCATGGGTAGAACGCCTGGACTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG GGAAAAGTTTGCCTATGTGCCATTTGGAGCTGGGCGTCATCGTTGTATTGGGGAAAATTTTGCCTATGTTCAAAT TAAGACAATTTGGTCCACTATGCTTCGTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA TACAACTATGATTCACACCCCTGAGAACCCAGTTATCCGTTACAAACGAAGATCAAAA**TGA**AAAAGGTTGCAAGG AACGAATATATGTGATTATCACTGTAAGCCACAAAGGCATTCGAAGAGAATGAAGTGTACAAAACAACTCTTGTA GTTTACTGTTTTTTTAAGTGTGTAATTCTAAAAGCCAGTTTATGATTTAGGATTTTGTTAACTGAATGGTTCTAT CAAATATAATAGCATTTGACACATTTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCTTGGTG AAACAATTGTTGAGGGGGGATCTAGGTAATTGGCAGATTCTAAATAATATATTTCCAGATAGTAATTTTAAGAG TACTCATCGCTCTTGCCAAATAAGTTCAGGGTATTCAAATCTTGGACTAGTCCTGCAAGGTATAAAGAATAAAAA GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATTGTTTTGGTATGATGATACTCAGAAATG GAGATATTATAGGAAAAAGAAATCCTTTGGAATTTTAACTAAAATCACTGCATATGGGAAATTAAGAGATCCAGG ACCATATTTGATAAGAGTTCCTAAAAATAATGTAATTATTAATGCTAAAGACTGCTCATGTATCTTGATCTAATT ACTAAATAAATTACATATTTATTTACCTGATAAATATGTATCTAGTTCTACAAGGTCACATTTATGTGGAAGTCC TTGAGATGGAGTCTCGCTCTGTTGCCCAGGCTGGAGTGCAGTGGTGCGATCTCAGCTCACTGCATCCTCTGCCTC CCGGGTTCAAGCAATTCTCTGCCTCAGCCTCCCAAGTAGTTGGGATTACAGGCACCTGCCACCATGCCTGGCTAA TTTTTTGTATTTTTAGTAGAGACGGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACTCCTGAGCCTCGTGAG TCCACCCGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCTGGCCTTCCCTCT CTAGAATCCAATTAGGGATGTTTGTTACTACTCATATTGATTAAAACAGTTAACAAACTTTTTTCTTTTTAAAAT GTGAGATCAGTGAACTCTGGTTTTAAGATAATCTGAAACAAGGTCCTTGGGAGTAATAAAATTGGTCACATTCTG TAAAGCACATTCTGTTTAGGAATCAACTTATCTCAAATTGTAACTCGGGGCCTAACTATATGAGATGGCTGAAAA AATACCACATCGTCTGTTTTCACTAGGTGATGCCAAAATATTTTGCTTTATGTATATTACAGTTCTTTTTAAAAC ACTGGAAGACTCATGTTAAACTCTAATTGTGAAGGCAGAATCTCTGCTAATTTTTCAGATTAAAATTCTCTTTGA AAAAAT

## 334/2682 FIGURE 312

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACAFTLSLVYLIRLAAGHLVQLPAGVKSPPYIFSPIP FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKTFTYLLGSDAAALLFNSKNEDLNAEDVYSRLTTPVFGKGVA YDVPNPVFLEQKKMLKSGLNIAHFKQHVSIIEKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIRSQL NEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQKRRQSQEKIDDILQTLLDATYKDGR PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRCIKE TLRLRPPIMIMMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDSWVERLDFNPDRYLQDNPASGEKFAYVPFGA GRHRCIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

# 335/2682 FIGURE 313

# 336/2682 FIGURE 314

 ${\tt MATVQQLEGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSCTLGEKFEE} \\ {\tt TTADGRKTQTVCNFTDGALVQHQEWDGKESTITRKLKDGKLVVECVMNNVTCTRIYEKVE}$ 

#### 337/2682 FIGURE 315

 ${\tt TGGCCGAAGCAGGGGGACAGCAAGGGACGCTCAGGCGGGGACC\underline{{\tt ATG}}{\tt GCGGACGGCGGCTCGGAGCGGGCTGACGG}}$ GCGCATCGTCAAGATGGAGGTGGACTACAGCGCCACGGTGGATCAGCCCTACCCGAGTGTGCGAAGCTAGCCAA ATCGACATCCCGTATCTTAGTTGCAGTAGTGAAGATGTGCTATGAGGCTAAAGAATGGGATTTACTTAATGAAAA TATTATGCTTTTGTCCAAAAGGCGGAGTCAGTTAAAACAAGCTGTTGCCAAAATGGTTCAACAGTGCTGTACTTA TGTTGAGGAAATCACAGACCTTCCTATCAAACTTCGATTAATTGATACTCTACGAATGGTTACCGAAGGCAAGAT TTATGTTGAAATTGAGCGTGCGCGACTGACTAAAACATTAGCAACTATAAAAGAACAAAATGGTGATGTGAAAGA TTTGGAGCAAATGAGGCTCTGCCTAGCTGTGAAGGATTACATTCGAACACAAATCATCAGCAAGAAAAATTAACAC CAAATTTTTCCAGGAAGAAAATACAGAGAAATTAAAGTTGAAGTACTATAATTTAATGATTCAGCTGGATCAACA TGAGGGATCCTATTTGTCTATTTGTAAGCACTACAGAGCAATATATGATACTCCCTGTATACAGGCAGAAAGTGA AAAATGGCAGCAGGCTCTGAAGAGTGTTGTACTCTATGTTATCCTGGCTCCTTTTGACAATGAACAGTCAGATTT GGTTCACCGAATAAGTGGTGACAAGAAGTTAGAAGAAATTCCCAAATACAAGGATCTTTTAAAGCTTTTTACCAC AATGGAGTTGATGCGTTGGTCCACACTTGTTGAGGACTATGGAATGGAATTAAGAAAAGGTTCCCTTGAGAGTCC TGCAACGGATGTTTTTGGTTCTACAGAGGAAGGTGAAAAAAGGTGGAAAGACTTGAAGAACAGAGTTGTTGAACA TGATGAGTCCGAAGCCTTTCTCTCAAATCTAGTAGTTAACAAGACCATCTTTGCTAAAGTAGACAGATTAGCAGG AATTATCAACTTCCAGAGACCCAAGGATCCAAATAATTTATTAAATGACTGGTCTCAGAAACTGAACTCATTAAT GTCTCTGGTTAACAAAACTACGCATCTCATAGCCAAAGAGGGAGATGATACATAATCTACAA**TAA**GGGTCTTAGTG TAAGCTTCTTTGTCTTAAATTTTAAAATAGTGAATATGTTTGAGACTCCCTTTGACCTTTCAGTTCCCCAAGTTC ATTGTTAACTTTGCATTTGCAATTGGTGCAAAAATACAGATTTCTGTCGTCTGAATACACAAAAAGTTGTGTCAT ATTCCAATAATAAAAGCAGTATATACATATTTCCTTTCTACAGTTACCTCTGATTCTCAACATTTTGTGGGGTAG TGATTTGGCAAGTGTTTTTTAAATAAAACAAATCTCATTGTAAAGTTATCAGTCATTTAGTAGAATAGAAAAGCA ACATAGAGCATACAAGAACATTTGGGATAGAGTTGTGATTTGTGAAGAATTTGTACTTTGATATTGTGGCGGAAA GTAGCTTGATTGCTTTCAGCCCTCATCCTCTCACTTGATCAGTTGTTCAACAGAATCAGCTGACATAATTGACAC CTCTCCCCTTTCTTTATATGGGTTTAAATTTAACATAAAGTTGTTTTTATAAGGCTTATTTGTGGCTTTAACTTG TAAGTCTGATTACATCATTATTGTTCCAAATTCATTATCTCTGTAGGAACTTTTAGTTCCATTATATGAACACTG GATAACCTAATTTTTTTTAATGCTTTAAAAAAATGGCAAAAAGACGTCAGGCCACCCTCATAGTAAGTGGTGTAG TATTAAAATATTTTCACGGAATTAAAAGTAGCTTGCTGTCAAAGAAACACCTGAGATGAATTGGTGTGAACGAAT TTTGCAAGTTTAATTTGATTTATTTCAGAGAAAATAGAAAAACAATGTTAGAAGGTTATTTAAAATGATACTTA **AATAAAGAAAGTGTGAGGTCTACTTTAAAAAAATTCAAATGAAGAGAAAAAGAAAAACAGCATTCTAGAAATGGC** ATTTCTCCTAATTAATTTTCCACTTAATGGAAGATTATCAATTGTCCTATTTTATGATCCCAGGACTGAAGACAG TTGTGGGATATCTGTCATATTTATCCTGTGAGTCATTGTGAATAATGACATACAGTACTGAAGTAATCTGATTTT ATTCTTTGGAAATTCAATGCATTGGTCACACTAATAACATCAACATCTGCTATCACTTATCTTTTTAAAACTAAC TCTTTGTGTATTATGATTCAGTGCTATTTGTAACTGTGTCCCAGTGACCAAATTGCACTCGACTCGATCAGCTGT GTATTACAAAATAATTCATTAGCATAAAGTACAATAGTGAAATATTTGAGTTGTTCGGAACCTCAATTAATCCTG TTTTACATTTCAGACCTAAAGCTGGCAATCAGGAGAAGAAGCACTTTGTTTTAAATGTGGAGAAGATAACACTTG ATTCCATTTCATTGTCATTAGTGTATTAACCAGCAGGAGAGGTGATGAGCCATTTTTCAAATGAAATACCTTTTA TTTCCATATAATTTTTTTATTTTAGAGTTCAATAGCTGTTTCTATGATTATCCTCAATTTCCATATGTTACTGAA TCTGAAAAACATCTTTAAAATTCAAACAGTTCCATTTTCTCTCTTGTAAGTGTTAAATGTGATAAAAGTACATAT TTTAAATTGTTTTCAGCTCTTGGATATAGCAGCAATAAAAACACTAATTTGTGGGTATTTAAGAAAACCTGGAGA ATAAACTCATACTTTAAAAGATC

# 338/2682 FIGURE 316

MADGGSERADGRIVKMEVDYSATVDQRLPECAKLAKEGRLQEVIETLLSLEKQTRTASDMVSTSRILVAVVKMCY EAKEWDLLNENIMLLSKRRSQLKQAVAKMVQQCCTYVEEITDLPIKLRLIDTLRMVTEGKIYVEIERARLTKTLA TIKEQNGDVKEAASILQELQVETYGSMEKKERVEFILEQMRLCLAVKDYIRTQIISKKINTKFFQEENTEKLKLK YYNLMIQLDQHEGSYLSICKHYRAIYDTPCIQAESEKWQQALKSVVLYVILAPFDNEQSDLVHRISGDKKLEEIP KYKDLLKLFTTMELMRWSTLVEDYGMELRKGSLESPATDVFGSTEEGEKRWKDLKNRVVEHNIRIMAKYYTRITM KRMAQLLDLSVDESEAFLSNLVVNKTIFAKVDRLAGIINFQRPKDPNNLLNDWSQKLNSLMSLVNKTTHLIAKEE MIHNLQ

## 339/2682 FIGURE 317

GAGGCTTGGCGGGAAAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTCGGGGCTTTATCTAA GAGCTGCGCTGCGGGCGTCCTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCG TTGCACTGGAACTTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTTGGGG ACACTTCCCCGCCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGCAGCTGCTTAGACGCTGGATTTTTTT  $\tt CGGGTAGTGGAAAACCAGCAGCCTCCCGCGACG{\color{blue} ATG} CCCCTCAACGTTAGCTTCACCAACAGGAACTATGACCTC$ GACTACGACTCGGTGCAGCCGTATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGCAGCGAG CTGCAGCCCCGGCGCCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCCACCCCGCCCCTGTCCCCTAGC CGCCGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTCACACCCTTCTCCCTTCGGGGAGACAACGACGGCGGT GGCGGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACCAGAGT TTCATCTGCGACCCGGACGACGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG GCCGCCGCCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCGAACCCC GCCCGCGGCCACAGCGTCTGCTCCACCTCCAGCTTGTACCTGCAGGATCTGAGCGCCGCCGCCTCAGAGTGCATC GACCCCTCGGTGGTCTTCCCCTACCCTCTCAACGACAGCAGCTCGCCCAAGTCCTGCGCCTCGCAAGACTCCAGC GCCTTCTCCCGTCCTCGGATTCTCTGCTCTCCTCGACGGAGTCCTCCCCGCAGGCCAGGCCCCGAGCCCCTGGTG CTCCATGAGGAGACACCGCCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAATCGATGTT GTTTCTGTGGAAAAGAGGCAGGCTCCTGGCAAAAGGTCAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAAA ACTCGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTCAGAGTCCTGAGACAGATCAGCAACAAC CGAAAATGCACCAGCCCCAGGTCCTCGGACACCGAGGAGAATGTCAAGAGGCGAACACACAACGTCTTGGAGCGC CAGAGGAGGAACGAGCTAAAACGGAGCTTTTTTGCCCTGCGTGACCAGATCCCGGAGTTGGAAAACAATGAAAAG TCTGAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAAACTTGAACAGCTACGGAACTCTTGTGCG TAA GGAAAAGTAAGGAAAACGATTCCTTCTAACAGAAATGTCCTGAGCAATCACCTATGAACTTGTTTCAAATGC ATGATCAAATGCAACCTCACAACCTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAA ATTGTTTTTAAAAAATTTTAA

# 340/2682 FIGURE 318

MPLNVSFTNRNYDLDYDSVQPYFYCDEEENFYQQQQQSELQPPAPSEDIWKKFELLPTPPLSPSRRSGLCSPSYV AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNIIIQDCMWSGFSAAAKLVSEKLA SYQAARKDSGSPNPARGHSVCSTSSLYLQDLSAAASECIDPSVVFPYPLNDSSSPKSCASQDSSAFSPSSDSLLS STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEEEIDVVSVEKRQAPGKRSESGSPSAGGHSKPPHSPLVLKRC HVSTHQHNYAAPPSTRKDYPAAKRVKLDSVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF ALRDQIPELENNEKAPKVVILKKATAYILSVQAEEQKLISEEDLLRKRREQLKHKLEQLRNSCA

#### 341/2682 FIGURE 319A

ACTCTGGAGTGGGAGTGGGAGCGAGCGCTTCTGCGACTCCAGTTGTGAGAGCCGCAAGGGCATGGGAATTGACGC
CACTCACCGACCCCCAGTCTCAATCTCAACGCTGTGAGGAAACCTCGACTTTGCCAGGTCCCCAAGGGCAGCGGG
GCTCGGCGAGCGAGCCACCCTTCTCCGTCCCCATCCCAATCCAAGCGCTCCTGGCACTGACGACGCCAAGAGACT
CGAGTGGGAGTTAAAGCTTCCAGTGAGGGCAGCAGGTGTCCAGGCCGGGCCTGCGGGTTCCTGTTGACGTCTTGC
CCTAGGCAAAGGTCCCAGTTCCTTCTCGGAGCCGGCTGTCCCGCGCCCACTGGAAACCGCACCTCCCCGCAGCATG

CTGGCGCGCGCTACGGCGACGTTTTCCAGATCCGCCTGGGCAGCTGCCCCATAGTGGTGCTGAATGGCGAGCGC TCCGGCGGCCGCAGCATGGCTTTCGGCCACTACTCGGAGCACTGGAAGGTGCAGCGGGCGCGCAGCCCACAGCATG ATGCGCAACTTCTCACGCGCCAGCCGCGCAGCCGCAAGTCCTCGAGGGCCACGTGCTGAGCGAGGCGCGAG CTGGTGGCGCTGCTGGTGCGCGCGCGCGGCGCGCCCTTCCTCGACCCGAGGCCGCTGACCGTCGTGGCCGTG GCCAACGTCATGAGTGCCGTGTGTTTCGGCTGCCGCTACAGCCACGACGACCCCGAGTTCCGTGAGCTGCTCAGC CACAACGAAGAGTTCGGGCGCACGGTGGGCGCGGGCAGCCTGGTGGACGTGATGCCCTGGCTGCAGTACTTCCCC AACCCGGTGCGCACCGTTTTCCGCGAATTCGAGCAGCTCAACCGCAACTTCAGCAACTTCATCCTGGACAAGTTC TTGAGGCACTGCGAAAGCCTTCGGCCCGGGGCCGCCCCCCGCGACATGATGGACGCCTTTATCCTCTCTGCGGAA AAGAAGGCGGCCGGGGACTCGCACGGTGGTGGCGCCGCCGGCTGGATTTGGAGAACGTACCGGCCACTATCACTGAC ATCTTCGGCGCCAGCCAGGACACCCTGTCCACCGCGCTGCAGTGGCTGCTCCTCCTCTTCACCAGGTATCCTGAT AACCTGCCCTATGTCCTGGCCTTCCTTTATGAAGCCATGCGCTTCTCCAGCTTTGTGCCTGTCACTATTCCTCAT GCCACCACTGCCAACACCTCTGTCTTGGGCTACCACATTCCCAAGGACACTGTGGTTTTTGTCAACCAGTGGTCT GTGAATCATGACCCAGTGAAGTGGCCTAACCCGGAGAACTTTGATCCAGCTCGATTCTTGGACAAGGATGGCCTC ATCAACAAGGACCTGACCAGCAGAGTGATGATTTTTTCAGTGGGCAAAAGGCGGTGCATTGGCGAAGAACTTTCT AAGATGCAGCTTTTTCTCTTCATCTCCATCCTGGCTCACCAGTGCGATTTCAGGGCCAACCCAAATGAGCCTGCG AAAATGAATTTCAGTTATGGTCTAACCATTAAACCCAAGTCATTTAAAGTCAATGTCACTCTCAGAGAGTCCATG GAGCTCCTTGATAGTGCTGTCCAAAATTTACAAGCCAAGGAAACTTGCCAA<u>TAA</u>GAAGCAAGAGGCAAGCTGAAA TTTTAGAAATATTCACATCTTCGGAGATGAGGAGTAAAATTCAGTTTTTTTCCAGTTCCTCTTTTGTGCTGCTTC TCAATTAGCGTTTAAGGTGAGCATAAATCAACTGTCCATCAGGTGAGGTGTGCTCCATACCCAGCGGTTCTTCAT GAGTAGTGGGCTATGCAGGAGCTTCTGGGAGATTTTTTTGAGTCAAAGACTTAAAGGGCCCAATGAATTATTATA TACATACTGCATCTTGGTTATTTCTGAAGGTAGCATTCTTTGGAGTTAAAATGCACATATAGACACATACACCCA **AACACTTACACCAAACTACTGAATGAAGAAGTATTTTGGTAACCAGGCCATTTTTGGTGGGAATCCAAGATTGGT** CTCCCATATGCAGAAATAGACAAAAGTATATTAAACAAAGTTTCAGAGTATATTGTTGAAGAGACAGAGACAAG TAATTTCAGTGTAAAGTGTGTGATTGAAGGTGATAAGGGAAAAGATAAAGACCAGAAATTCCCTTTTCACCTTTT CAGGAAAATAACTTAGACTCTAGTATTTATGGGTGGATTTATCCTTTTGCCTTCTGGTATACTTCCTTACTTTTA AGGATAAATCATAAAGTCAGTTGCTCAAAAAGAAATCAATAGTTGAATTAGTGAGTATAGTGGGGTTCCAŢGAGT GATTTCAGTAAGTCTCATAGGTTAAAAAAAAAAGTCACCAAATAGTGTGAAATATATTACTTAACTGTCCGTAAG CAGTATATTAGTATTATCTTGTTCAGGAAAAGGTTGAATAATATATGCCTTGTGTAATATTGAAAATTGAAAAGT ACAACTAACGCAACCAAGTGTGCTAAAAATGAGCTTGATTAAATCAACCACCTATTTTTGACATGGAAATGAAGC AGGGTTTCTTTCTTCACTCAAATTTTGGCGAATCTCAAAATTAGATCCTAAGATGTGTTCTTATTTTTATAACA TCATGGCATGCTTAAATTTTAACTAAATTTTAAAGCCATTCTGATTATTGAGTTCCAGTTGAAGTTAGTGGAAAT CTGAACATTCTCCTGTGGAAGGCAGAGAATCTAAGCTGTGTCTGCCCAATGAATAATGGAAAATGCCATGAATT ACCTGGATGTTCTTTTTACGAGGTGACAAGAGTTGGGGACAGAACTCCCATTACAACTGACCAAGTTTCTCTTCT AGATGATTTTTTGAAAGTTAACATTAATGCCTGCTTTTTGGAAAGTCAGAATCAGAAGATAGTCTTGGAAGCTGT TTGGAAAAGACAGTGGAGATGAGGTCAGTTGTGTTTTTTAAGATGGCAATTACTTTGGTAGCTGGGAAAGCATAA

#### 342/2682 FIGURE 319B

AGCTCAAATGAAATGTATGCATTCACATTTAGAAAAGTGAATTGAAGTTTCAAGTTTTAAAGTTCATTGCAATTA AACTTCCAAAGAAAGTTCTACAGTGTCCTAAGTGCTAAGTGCTTATTACATTTTATTAAGCTTTTTGGAATCTTT CAAAATTCAAAGCATGGACATTTAGAAGAAAGATGTTTGGCGTAGCAGAGTTAAATCTCAAATAGGCTATTAAAA AAGTCTACAACATAGCAGATCTGTTTTGTGGTTTTGGAATATTAAAAAACTTCATGTAATTTTATTTTAAAATTTC ATAGCTGTACTTCTTGAATATAAAAAATCATGCCAGTATTTTTAAAGGCATTAGAGTCAACTACACAAAGCAGGC TTGCCCAGTACATTTAAATTTTTTGGCACTTGCCATTCCAAAATATTATGCCCCACCAAGGCTGAGACAGTGAAT TTGGGCTGCTGTAGCCTATTTTTTTAGATTGAGAAATGTGTAGCTGCAAAAATAATCATGAACCAATCTGGATGC CTCATTATGTCAACCAGGTCCAGATGTGCTATAATCTGTTTTTACGTATGTAGGCCCAGTCGTCATCAGATGCTT GCGGCAAAAGAAGCTGTGTTTATATGGAAGAAAGTAAGGTGCTTGGAGTTTACCTGGCTTATTTAATATGCTTA TAACCTAGTTAAAGAAAGGAAAAGAAAACAAAAAAACGAATGAAAATAACTGAATTTGGAGGCTGGAGTAATCAGA TTACTGCTTTAATCAGAAACCCTCATTGTGTTTCTACCGGAGAGAATGTATTTGCTGACAACCATTAAAGTCA GAAGTTTTACTCCAGGTTATTGCAATAAAGTATAATGTTTATTAAATGCTTCATTTGTATGTCAAAGCTTTGACT GTCCCAGAACTTAGCCTTTACCTGTGAAGTGTTACTACAGCCTTAATATTTTCCTAGTAGATCTATATTAGATCA AATAGTTGCATAGCAGTATATGTTAATTTGTGTGTTTTTTAGCTGTGACACAACTGTGTGATTAAAAGGTATACTT TAGTAGACATTTATAACTCAAGGATACCTTCTTATTTAATCTTTTCTTATTTTTGTACTTTATCATGAATGCTTT TAGTGTGTGCATAATAGCTACAGTGCATAGTTGTAGACAAAGTACATTCTGGGGGAAACAACATTTATATGTAGCC TTTACTGTTTGATATACCAAATTAAAAAAAATTGTATCTCATTACTTATACTGGGACACCATTACCAAAATAAT AAAAATCACTTTCATAATCTTGAAAAAA

# 343/2682 FIGURE 320

MGTSLSPNDPWPLNPLSIQQTTLLLLLSVLATVHVGQRLLRQRRRQLRSAPPGPFAWPLIGNAAAVGQAAHLSFA RLARRYGDVFQIRLGSCPIVVLNGERAIHQALVQQGSAFADRPAFASFRVVSGGRSMAFGHYSEHWKVQRRAAHS MMRNFFTRQPRSRQVLEGHVLSEARELVALLVRGSADGAFLDPRPLTVVAVANVMSAVCFGCRYSHDDPEFRELL SHNEEFGRTVGAGSLVDVMPWLQYFPNPVRTVFREFEQLNRNFSNFILDKFLRHCESLRPGAAPRDMMDAFILSA EKKAAGDSHGGGARLDLENVPATITDIFGASQDTLSTALQWLLLLFTRYPDVQTRVQAELDQVVGRDRLPCMGDQ PNLPYVLAFLYEAMRFSSFVPVTIPHATTANTSVLGYHIPKDTVVFVNQWSVNHDPVKWPNPENFDPARFLDKDG LINKDLTSRVMIFSVGKRRCIGEELSKMQLFLFISILAHQCDFRANPNEPAKMNFSYGLTIKPKSFKVNVTLRES MELLDSAVQNLQAKETCQ

## 344/2682 FIGURE 321A

 $\verb|CTCTCACACACACACCCCTCCCCTGCCATCCCTCCCGGACTCCGGCTCCGGCTCCGATTGCAATCC| \\$ TCCGCTGCCGTCGCCGCAGCAGCCACCAATTCGCCAGCGGTTCAGGTGGCTCTTGCCTCGATGTCCTAGCCTAGG GGCCCCGGGCCGGACTTGGCTGGGCTCCCTTCACCCTCTGCGGAGTCATGAGGGCGAACGACGCTCTGCAGGTG CTGGGCTTGCTTTTCAGCCTGGCCCGGGGCTCCGAGGTGGGCAACTCTCAGGCAGTGTGTCCTGGGACTCTGAAT GGCCTGAGTGTGACCGGCGATGCTGAGAACCAATACCAGACACTGTACAAGCTCTACGAGAGGTGTGAGGTGGTG GTCTACGATGGGAAGTTTGCCATCTTCGTCATGTTGAACTATAACACCAACTCCAGCCACGCTCTGCGCCAGCTC CGCTTGACTCAGCTCACCGAGATTCTGTCAGGGGGTGTTTATATTGAGAAGAACGATAAGCTTTGTCACATGGAC ACAATTGACTGGAGGGACATCGTGAGGGACCGAGATGCTGAGATAGTGGTGAAGGACAATGGCAGAAGCTGTCCC  $\verb|CCCTGTCATGAGGTTTGCAAGGGGGGTGCTGGGGTCCTGGATCAGAAGACTGCCAGACATTGACCAAGACCATC| \\$ TGTGCTCCTCAGTGTAATGGTCACTGCTTTGGGCCCCAACCCCAACCAGTGCTGCCATGATGAGTGTGCCGGGGGC TGCTCAGGCCCTCAGGACACAGACTGCTTTGCCTGCCGGCACTTCAATGACAGTGGAGCCTGTGTACCTCGCTGT CCACAGCCTCTTGTCTACAACAAGCTAACTTTCCAGCTGGAACCCAATCCCCACACCAAGTATCAGTATGGAGGA GTTTGTGTAGCCAGCTGTCCCCATAACTTTGTGGTGGATCAAACATCCTGTGTCAGGGCCTGTCCTCCTGACAAG ATGGAAGTAGATAAAAATGGGCTCAAGATGTGTGAGCCTTGTGGGGGACTATGTCCCAAAGCCTGTGAGGGAACA GGCTCTGGGAGCCGCTTCCAGACTGTGGACTCGAGCAACATTGATGGATTTGTGAACTGCACCAAGATCCTGGGC AACGTGGACTTTCTGATCACCGGCCTCAATGGAGACCCCTGGCACAAGATCCCTGCCCTGGACCCAGAGAAGCTC AATGTCTTCCGGACAGTACGGGAGATCACAGGTTACCTGAACATCCAGTCCTGGCCGCCCCACATGCACAACTTC AGTGTTTTTTCCAATTTGACAACCATTGGAGGCAGAAGCCTCTACAACCGGGGCTTCTCATTGTTGATCATGAAG AACTTGAATGTCACATCTCTGGGCTTCCGATCCCTGAAGGAAATTAGTGCTGGGCGTATCTATATAAGTGCCAAT AGGCAGCTCTGCTACCACCACTCTTTGAACTGGACCAAGGTGCTTCGGGGGCCTACGGAAGAGCGACTAGACATC AAGCATAATCGGCCGCGCAGAGACTGCGTGGCAGAGGGCAAAGTGTGTGACCCACTGTGCTCCTCTGGGGGATGC TGGGGCCCAGGCCCTGGTCAGTGCTTGTCCTGTCGAAATTATAGCCGAGGAGGTGTCTGTGTGACCCACTGCAAC TTTCTGAATGGGGAGCCTCGAGAATTTGCCCATGAGGCCGAATGCTTCTCCTGCCACCCGGAATGCCAACCCATG GGGGGCACTGCCACATGCAATGGCTCGGGCTCTGATACTTGTGCTCAATGTGCCCATTTTCGAGATGGGCCCCAC TGTGTGAGCAGCTGCCCCCATGGAGTCCTAGGTGCCAAGGGCCCAATCTACAAGTACCCAGATGTTCAGAATGAA TGTCGGCCCTGCCATGAGAACTGCACCCAGGGGTGTAAAGGACCAGAGCTTCAAGACTGTTTAGGACAAACACTG GTGCTGATCGGCAAAACCCATCTGACAATGGCTTTGACAGTGATAGCAGGATTGGTAGTGATTTTCATGATGCTG GGCGGCACTTTTCTCTACTGGCGTGGGCGCCGGATTCAGAATAAAAGGGCTATGAGGCGATACTTGGAACGGGGT GAGAGCATAGAGCCTCTGGACCCCAGTGAGAAGGCTAACAAAGTCTTGGCCAGAATCTTCAAAGAGACAGAGCTA AGGAAGCTTAAAGTGCTTGGCTCGGGTGTCTTTGGAACTGTGCACAAAGGAGTGTGGATCCCTGAGGGTGAATCA ATCAAGATTCCAGTCTGCATTAAAGTCATTGAGGACAAGAGTGGACGGCAGAGTTTTCAAGCTGTGACAGATCAT ATGCTGGCCATTGCAGCCTGGACCATGCCCACATTGTAAGGCTGCTGGGACTATGCCCAGGGTCATCTCTGCAG CTTGTCACTCAATATTTGCCTCTGGGTTCTCTGCTGGATCATGTGAGACAACACCGGGGGGCACTGGGGCCACAG CTGCTGCTCAACTGGGGAGTACAAATTGCCAAGGGAATGTACTACCTTGAGGAACATGGTATGGTGCATAGAAAC CTGGCTGCCCGAAACGTGCTACTCAAGTCACCCAGTCAGGTTCAGGTGGCAGATTTTGGTGTGGCTGACCTGCTG CCTCCTGATGATAAGCAGCTGCTATACAGTGAGGCCCAAGACTCCAATTAAGTGGATGGCCCTTGAGAGTATCCAC TTTGGGAAATACACACACAGAGTGATGTCTGGAGCTATGGTGTGACAGTTTGGGAGTTGATGACCTTCGGGGCA GAGCCCTATGCAGGGCTACGATTGGCTGAAGTACCAGACCTGCTAGAGAAGGGGGAGCGGTTGGCACAGCCCCAG GACCTAGACCTAGACTTGGAAGCAGAGGAGGACAACCTGGCAACCACCACACTGGGCTCCGCCCTCAGCCTACCA GTTGGAACACTTAATCGGCCACGTGGGAGCCAGAGCCTTTTAAGTCCATCATCTGGATACATGCCCATGAACCAG GGTAATCTTGGGGGGTCTTGCCAGGAGTCTGCAGTTTCTGGGAGCAGTGAACGGTGCCCCCGTCCAGTCTCTCTA CACCCAATGCCACGGGGATGCCTGGCATCAGAGTCATCAGAGGGGCATGTAACAGGCTCTGAGGCTGAGCTCCAG GAGAAAGTGTCAATGTGTAGAAGCCGGAGCAGGAGCCGGAGCCCACGCCACGCGAGATAGCGCCTACCATTCC

## 345/2682 FIGURE 321B

CAGCGCCACAGTCTGCTGACTCCTGTTACCCCACTCTCCCCACCCGGGTTAGAGGAAGAGGATGTCAACGGTTAT GTCATGCCAGATACACACCTCAAAGGTACTCCCTCCTCCCGGGAAGGCACCCTTTCTTCAGTGGGTCTCAGTTCT GTCCTGGGTACTGAAGAAGAAGATGAAGATGAGGAGTATGAATACATGAACCGGAGGAGAAGGCACAGTCCACCT CATCCCCTAGGCCAAGTTCCCTTGAGGAGCTGGGTTATGAGTACATGGATGTGGGGTCAGACCTCAGTGCCTCT CTGGGCAGCACAGAGTTGCCCACTCCACCCTGTACCCATCATGCCCACTGCAGGCACAACTCCAGATGAAGAC TATGAATATATGAATCGGCAACGAGATGGAGGTGGTCCTGGGGGGTGATTATGCAGCCATGGGGGCCTGCCCAGCA TCTGAGCAAGGGTATGAAGAGATGAGAGCTTTTCAGGGGCCTGGACATCAGGCCCCCCATGTCCATTATGCCCGC CTAAAAACTCTACGTAGCTTAGAGGCTACAGACTCTGCCTTTGATAACCCTGATTACTGGCATAGCAGGCTTTTC  $\tt CCCAAGGCTAATGCCCAGAGAACG\underline{TAA} CTCCTGCTCCCTGTGGCACTCAGGGAGCATTTAATGGCAGCTAGTGCC$ TTTAGAGGGTACCGTCTTCTCCCTATTCCCTCTCTCTCCCAGGTCCCAGCCCCTTTTCCCCAGTCCCAGACAATT CCATTCAATCTTTGGAGGCTTTTAAACATTTTGACACAAAATTCTTATGGTATGTAGCCAGCTGTGCACTTTCTT CTCTTTCCCAACCCCAGGAAAGGTTTTCCTTATTTTGTGTGCTTTCCCAGTCCCATTCCTCAGCTTCTTCACAGG CACTCCTGGAGATATGAAGGATTACTCTCCATATCCCTTCCTCTCAGGCTCTTGACTACTTGGAACTAGGCTCTT ATGTGTGCCTTTGTTTCCCATCAGACTGTCAAGAAGAGGGAAAGGGAAACCTAGCAGAGGAAAGTGTAATTTT TTACTATCATAATTCAGCACTTAACTATGAGCCAGGCATCATACTAAACTTCACCTACATTATCTCACTTAGTCC TTTATCATCCTTAAAACAATTCTGTGACATACATATTATCTCATTTTACACAAAGGGAAGTCGGGCATGGTGGCT GCCAACATAGTAAGACCCCCATCTC

#### 346/2682 FIGURE 322

MRANDALQVLGLLFSLARGSEVGNSQAVCPGTLNGLSVTGDAENQYQTLYKLYERCEVVMGNLEIVLTGHNADLS FLQWIREVTGYVLVAMNEFSTLPLPNLRVVRGTQVYDGKFAIFVMLNYNTNSSHALRQLRLTQLTEILSGGVYIE KNDKLCHMDTIDWRDIVRDRDAEIVVKDNGRSCPPCHEVCKGRCWGPGSEDCQTLTKTICAPQCNGHCFGPNPNQ CCHDECAGGCSGPQDTDCFACRHFNDSGACVPRCPQPLVYNKLTFQLEPNPHTKYQYGGVCVASCPHNFVVDQTS CVRACPPDKMEVDKNGLKMCEPCGGLCPKACEGTGSGSRFQTVDSSNIDGFVNCTKILGNLDFLITGLNGDPWHK IPALDPEKLNVFRTVREITGYLNIQSWPPHMHNFSVFSNLTTIGGRSLYNRGFSLLIMKNLNVTSLGFRSLKEIS AGRIYISANROLCYHHSLNWTKVLRGPTEERLDIKHNRPRRDCVAEGKVCDPLCSSGGCWGPGPGQCLSCRNYSR  ${\tt GGVCVTHCNFLNGEPREFAHEAECFSCHPECQPMGGTATCNGSGSDTCAQCAHFRDGPHCVSSCPHGVLGAKGPI}$ YKYPDVQNECRPCHENCTQGCKGPELQDCLGQTLVLIGKTHLTMALTVIAGLVVIFMMLGGTFLYWRGRRIQNKR AMRRYLERGESIEPLDPSEKANKVLARIFKETELRKLKVLGSGVFGTVHKGVWIPEGESIKIPVCIKVIEDKSGR OSFOAVTDHMLAIGSLDHAHIVRLLGLCPGSSLQLVTQYLPLGSLLDHVRQHRGALGPQLLLNWGVQIAKGMYYL EEHGMVHRNLAARNVLLKSPSQVQVADFGVADLLPPDDKQLLYSEAKTPIKWMALESIHFGKYTHQSDVWSYGVT VWELMTFGAEPYAGLRLAEVPDLLEKGERLAQPQICTIDVYMVMVKCWMIDENIRPTFKELANEFTRMARDPPRY LVIKRESGPGIAPGPEPHGLTNKKLEEVELEPELDLDLDLEAEEDNLATTTLGSALSLPVGTLNRPRGSQSLLSP  $\tt SSGYMPMNQGNLGGSCQESAVSGSSERCPRPVSLHPMPRGCLASESSEGHVTGSEAELQEKVSMCRSRSRSRSPR$ PRGDSAYHSQRHSLLTPVTPLSPPGLEEEDVNGYVMPDTHLKGTPSSREGTLSSVGLSSVLGTEEEDEDEEYEYM NRRRRHSPPHPPRPSSLEELGYEYMDVGSDLSASLGSTQSCPLHPVPIMPTAGTTPDEDYEYMNRQRDGGGPGGD YAAMGACPASEQGYEEMRAFQGPGHQAPHVHYARLKTLRSLEATDSAFDNPDYWHSRLFPKANAQRT

## 347/2682 FIGURE 323A

GGAGGAGACAAGCCGTCAATTTTCTCCAAAACAAACCCCCCGGGCAATTTGGTCTCGGGGTAGGGGGAGACGGG GTGATTGCAAATTATTCCAGGACGAGATCCAGTTCTCCAGCGGGAAAGGGCAAAGGAACGCCGCGCGTTGGAAG GGCCAGGGTACGCAGCTCCCCTTGCAGCGCCCGCAGGACCCCCGCAAGCTCGTGCCGGCGAAATCGGAGACCGCC ATGAGCCTGTGCTGACCTCCGCGCGGGGCCGAGCCCAGGGCTTTGTCGCGGTACCTGCGCCCAGCCCGCGCCG CAACTCTGTGCCCAGCTTTTGCAATCTTTTGTTGCAGCGCTGACCGCACCAAGTTAAATGCTCCCTTGCAATTTT TCTTTTTTTTGTTTGTTTGTTTAATTTTTGGAGAGCTCGCGATCTTGGAAAAGCCTCAGACGCCATCTACAGTTA TAACGCGTTGGGACTGAGTCGCCGCGTGAGCTCCCCGAAGACTGCACAAACTACCGCGGGCTCCTCCGCCCCGT CTGCGATTCGGAAGCCGGCCTGGGGGTCGCGTCGGGAGCCCTGCGCTGCAGCTCCGCACCTTAGCAGCCCGGGTA CTCATCCAGATCCACGCCGGGGACACACACACAGAGTAACTAAAAGTGCGGCGATTCTGCACATCGCCGACTGCT TTGGGGTAACAAAAAGACCCGAGTTGCCTGCCGACCGAGGACCCCGGGAGCCGGGCTCGGAGCAGACGAGGTAT TTTGTCGTGTGCGATCCTCACACTCATGAACATACACAGGTCTACCCCCATCACAATAGCGAGATATGGGAGATC  $\tt CCTCGGCTCCCCGAGCCCGCGCGGAGACTCCGAACTTGTCGCATTGCGTTTCTTGTATCGGGAAATACTTATTGTT$ GGAACCTCTGGAGGGAGACCACGTTTTTCGTGCCGTGCATCTGCACAGCGGAGAGGAGCTGGTGTGCAAGGTGTT TGATATCAGCTGCTACCAGGAATCCCTGGCACCGTGCTTTTGCCTGTCTGCTCATAGTAACATCAACCAAATCAC TGAAATTATCCTGGGTGAGACCAAAGCCTATGTGTTCTTTGAGCGAAGCTATGGGGACATGCATTCCTTCGTCCG CACCTGCAAGAAGCTGAGAGAGGAGGAGGCAGCCAGACTGTTCTACCAGATTGCCTCGGCAGTGGCCCACTGCCA GCTGGAAAGCCTGGAAGACGCCTACATTCTGCGGGGAGATGATGATTCCCTCTCCGACAAGCATGGCTGCCCGGC TTACGTAAGCCCAGAGATCTTGAACACCAGTGGCAGCTACTCGGGCAAAGCAGCCGACGTGTGGAGCCTGGGGGT GATGCTGTACACCATGTTGGTGGGGCGGTACCCTTTCCATGACATTGAACCCAGCTCCCTCTTCAGCAAGATCCG GCGTGGCCAGTTCAACATTCCAGAGACTCTGTCGCCCAAGGCCAAGTGCCTCATCCGAAGCATTCTGCGTCGGGA GCCCTCAGAGCGGCTGACCTCGCAGGAAATTCTGGACCATCCTTGGTTTTCTACAGATTTTAGCGTCTCGAATTC AGCATATGGTGCTAAGGAAGTGTCTGACCAGCTGGTGCCGGACGTCAACATGGAAGAACTTGGACCCTTTCTT TAACTGAGCTCATGCCCCACGGAGACTTAGCAGGTTCCAGGAGTGAGCGAGGGCAGCGGAAAGGAGTTCTTCCGG GGGACACGAATTGCCTGGCTGAGTAGCAAGAAAGACACTCTTAAGTTTCTTGGTTCAGAGCAGGAAAACCTTC CTGGAGCTTGTCTTCCCTAACATAGCCTGGGAGACCACCCCTTGCCACTTGGGCCACTTCCGCCTACCCCACTTT TCATTTTGTTCCAAAATAGTTGCAGATCCTGACAGAATCAAAACTCTCTGCCTCAAACACACATCCTGGCATCGC GGTGCTACAGTAAAAGAAAACAAAAGTCCAGTTTGTGTCTCTTAATCGCTCACTTCAACTCATTTCTTCTAAATA **AACTATTTAATATCCTGGTCAGGAAATGACATGTTAATGCTTTGCTCCCTGAAGGGGGAAAAAATCTGTCCTTTA** ACAAGCTATTCTGTTTTGTGTCAATTGGGTCCGTGGCAAGGAAGCTATTAGGAAGTCAAACGGTCCAGGATGCAT TACCTGCTAATCCTTAGGTTTAAAGGGGGAAAGAAAAGGGAAGAAAGGAAAAGAGAAATCCAACTCCTTTTT CATGTTTTGCTTTTGAACAATGAGGGTTTGTGTGACAGGCATTCCTCTTTGCTGAGATGATAGCAATGGCCTGAG ATTTTAGCAAGCTCCTGGAGTCTGATGCTTTTGCAGTACTCTGATCGCAACTAAACATTTGTCTTTGTTTTATTA GAAACTAGTGAAACAAAGCAGGTTGTCCCACATGTATAAAATACAGGGCAGCTATTTAGTTTTCTTTACAGAGAA TGATCCTTTTAAGGCTTGTAAGGCCCTCTGGTTTGGACAAAAACCCTCAGTAGAGACAAGCGGGAAGGATAATTA GCTGAAAGCTATGATGATATAAATAAAAACAGCTCTCTATCCCAATACGCACCTTTGTATTTTCAAGAACTCTTC TATTTATTAAGGAAAATGTCACATTGTGATGTATTAAGCCAGTACTTCAATTACGGGTTGACTTGGGATGACATA TTACATGCTGTAGTTAACATTTATAATTCTTTTTCCTTGTTTTGAGTATTTCTGTCTCTGAAATAACCTTTTACTT

# 348/2682 FIGURE 323B

## 349/2682 FIGURE 324

MNIHRSTPITIARYGRSRNKTQDFEELSSIRSAEPSQSFSPNLGSPSPPETPNLSHCVSCIGKYLLLEPLEGDHV FRAVHLHSGEELVCKVFDISCYQESLAPCFCLSAHSNINQITEIILGETKAYVFFERSYGDMHSFVRTCKKLREE EAARLFYQIASAVAHCHDGGLVLRDLKLRKFIFKDEERTRVKLESLEDAYILRGDDDSLSDKHGCPAYVSPEILN TSGSYSGKAADVWSLGVMLYTMLVGRYPFHDIEPSSLFSKIRRGQFNIPETLSPKAKCLIRSILRREPSERLTSQ EILDHPWFSTDFSVSNSAYGAKEVSDQLVPDVNMEENLDPFFN

# 350/2682 FIGURE 325

# 351/2682 FIGURE 326

MAAAKDTHEDHDTSTENTDESNHDPQFEPIVSLPEQEIKTLEEDEELFKMRAKLFRFASENDLPEWKERGTGDV KLLKHKEKGAIRLLMRRDKTLKICANHYITPMMELKPNAGSDRAWVWNTHADFADECPKPELLAIRFLNAENAQK FKTKFEECRKEIEEREKKAGSGKNDHAEKVAEKLEALSVKEETKEDAEEKQ

#### 352/2682 FIGURE 327

GGGGCGTGGCCCCGAGAAGGCGGAGACAAGATGGCCGCCCATAGCGCTTGGAGGACCTAAGAGGCGGTGGCCGG GCTGCGGCCGGGCCGGCTCTCCGGGATTCCAAGGGCTCGGTTACGGAAGAAGCGCAGCGCCGGCTGGGGAGGGGG CTGGATGCGCGCGCACCCGGGGGAGGCCGCTGCTGCCCGGAGCAGGAGGAGGGGGAGAGTGCGGCGGCGGCAG CGGCGCTGGCGGCGACTCCGCCATAGAGCAGGGGGGGCCAGGGCAGCGCGCTCGCCCCGTCCCCGGTGAGCGGCGT TGGCCGTGGCCGGGGCCGGGGCCGTGGCCGGGGACGGGGACGGGGCCGGGGCCGGGGCCGGGCCGTCCCCCGAG GGAGCCGGTCCCTTTCCCGTCGGGGAGCGCGGGGCCCAGGGGACCCCGGGCCACGGAGAGCGGGAAGAG GATGGATTGCCCGGCCCTCCCCCCGGATGGAAGAAGGAGGAAGTGATCCGAAAATCTGGGCTAAGTGCTGGCAA ACTGCGAAACGATCCTCTAATCAAAATAAGCTGCGCTGGAACACTCATCGTCCTGCACCATGGCATGCGCTTTC AAGACTCTGCTTGCTCATACGCTGTTTGCTCTGCTTGGAATGTGCTTACCCCCTTCCCCTTCATCTGGTGAACTC AGCTTTTCTGGGAGAAGAGGCTACAAGGACTTAGTGCATCAGATGTAACAGAACAAATTATAAAAACCATGGAAC TACCCAAAGGTCTTCAAGGAGTTGGTCCAGGTAGCAATGATGAGACCCTTTTATCTGCTGTTGCCAGTGCTTTGC ACACAAGCTCTGCGCCAATCACAGGGCAAGTCTCCGCTGCTGTGGAAAAGAACCCTGCTGTTTGGCTTAACACAT CTCAACCCCTCTGCAAAGCTTTTATTGTCACAGATGAAGACATCAGGAAACAGGAAGAGCGAGTACAGCAAGTAC GCAAGAATTGGAAGAAGCACTGATGGCAGACATCTTGTCGCGAGCTGCTGATACAGAAGAGATGGATATTGAAA AATTGAACAAAATGTTTCCACTGGCTTTTGCCTGTAAGAAAAAATGTACCCGAGCACATAGAGCTTTTTAAT AGCACTAACCAATGCCTTTTTAGATGTATTTTTGATGTATATATCTATTATTCAAAAAATCATGTTTATTTTGAG TCCTAGGACTTAAAATTAGTCTTTTGTAATATCAAGCAGGACCCTAAGATGAAGCTGAGCTTTTGATGCCAGGTG CAATCTACTGGAAATGTAGCACTTACGTAAAACATTTGTTTCCCCCACAGTTTTAATAAGAACAGATCAGGAATT CTAAATAAATTTCCCAGTTAAAGATTATTGTGACTTCACTGTATATAAACATATTTTTATACTTTATTGAAAGGG CTGTTGAAAAGCACACAATAAAGAACCCCTCGTTAGCCTTCCTCTGATTTACATTCAACTCTGATCCCTGGGC CTTAGGTTTGACATGGAGGTGGAGGAAGATAGCGCATATATTTGCAGTATGAACTATTGCCTCTGGACGTTGTGA TGTGACTTGGACTTTTGATAGTTCTATAAGAATAAGGCTTTTTCTTCCCTTGGGCATGAGTCAGATACACAAGGA CCCTTCAGGTGTTACTAGAAGGCGTCCATGTTTATTGTTTTTTAAAGAATGTTTGGCACTCTCTAACGTCCACTA GCTTACTGAGTTATCAGGTGCAGGTCAGACTCTTGGCTACAGTGAGAGGCAGCTTCTAGGCAGAGTTGCTTAATG AAAGGGTTTGTAATACTTTACAAACCATTACCTGTACCTGGCCTGGCCTCCAAAATATTAACATTCTTTTTCTGT TGAAACTCGCGAGTGTAACTTTCATACCACTTGAATTTATTGATATTTAATTATGAAAACTAGCATTACATTATT AAACGATTTCTAAAATC

# 353/2682 FIGURE 328

MRAHPGGGRCCPEQEEGESAAGGSGAGGDSAIEQGGQGSALAPSPVSGVRREGARGGGRGRWKQAGRGGGVCG RGRGRGRGRGRGRGRGRGRPPSGGSGLGGDGGCCGGGGSGGGAPRREPVPFPSGSAGPGPRGPRATESGKRM DCPALPPGWKKEEVIRKSGLSAGKSDVYYFSPSGKKFRSKPQLARYLGNTVDLSSFDFRTGKMMPSKLQKNKQRL RNDPLNQNKLRWNTHRPAPWHALSRLCLLIRCLLCLECAYPLPLHLVNSYSSKTQLHCLHLWEACPAYSRQNQSF PP

## 354/2682 FIGURE 329A

CGGACGCGTGGGAACGAAGCCACCCATTACGGTATGATGATGTCAAACGTGATGCTGATGCTACAGTTACAGCCC CTGCTGGCGCAGCCTCTCTGATTCTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTCAGACAAGTGCATCTCC TAACCAGGTCACATTTCAGCCGCGACCCACTCTCCGCCAGTCACCGGAGGCAGACCGCGGGAGGAGAGCTGAGGA  $\tt CCTGGCCGAAGGCGACGCCAAGGGGCTCAAGGAGGGCGAGACCCCCGGCAATTTCATGGAGGACGACCAATGGCT$ GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCACTGGAACCGCTTCCGAGACGAAGTGGAGGATGACTATAT CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCACCAAGGACCCCTGCCAGAAGGTGAAGTG CAGCCGCCACAAGGTGTGCATTGCCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGCAAGAAGCTGGAGCACAG GATCAAGCAGCCGACCGTGAAACTCCATGGAAACAAAGACTCCATCTGCAAGCCCTGCCACATGGCCCAGCTTGC CTCTGTCTGCGGCTCAGATGGCCACACTTACAGCTCTGTGTGTAAGCTGGAGCAACAGGCGTGCCTGAGCAGCAA GCAGCTGGCGGTGCGATGCGAGGGCCCCTGCCCCTGCCCCACGGAGCAGGCTGCCACCTCCACCGCATGGCAA ACCAGAGACTTGCACCGGTCAGGACCTGGCTGACCTGGGAGATCGGCTGCGGGACTGGTTCCAGCTCCTTCATGA GAACTCCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCGGCCAGCGGCTGGACAAGAGCCTGGGGGCCAG  $\tt CTGCAAGGACTCCATTGGCTGGATGTTCTCCAAGCTGGACCAGTGCTGACCTCTTCCTGGACCAGACGGAGCT$ GGCCGCCATCAACCTGGACAAGTACGAGGTCTGCATCCGTCCCTTCTTCAACTCCTGTGACACCTACAAGGATGG CCAGATCCAGGAGGCCGCCAAGAAGAAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA GATGCAGTGTGACCAGAGCAGCGGTGACTGCTGGTGTGTGGACCAGCTGGGCCTGGAGCTGACTGGCACGCGCAC GCATGGGAGCCCCGACTGCGATGACATCGTGGGCTTCTCGGGGGGACTTTGGAAGCGGTGTCGGCTGGGAGGATGA GGGCTACATCTGGTAGACGCCCTCAGAAGCCGGCTGCCGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG GCAACTTCGAGAACGGATCCAGAAATGCAGTCAGAAGGACCCTGCTCCACCTGGGGGGACTGGGAGTGTGAGTGT TTGACAGGTCAAAATCCATGAAATGAGATCCCCCAGCCGTGTCCTCCAGCCCAGCCCTGACCCTTGGTTTCTAC CCTGTCCCTTTGCCGGATCCCCAAACACTAGAGAAGCTCTCCTAACCCAAGGCGGAGAATGAAGGTGGTGGCGGC AGAGGAGGAGGCAGCAGCTGAGAGGCCAGGGACAGGGTGCCCTAGCCAAGCTGTCTGAGGTCTGTCCCAGGTGGC CCAGGTGGTGCAGGTAGAACAGGGTGAGGAGAGGGGGGGTCGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG AGGAGCTTTTAGGTGTTGAGATGGGGCAGCTCTGAATCCTAGACCCTGGAATAGCCTGTCCCTTTTCTCTGGGTC TCGTGGTGGAGCCATGATCTGGGCTGCTCTCTTGGGGACACTGGGTGGTGGTTACACAGTTGACCTCTGCCTGGC TCCCCCTTGGTGCAACTCCTGCCTCCATCCCCCTTGCTGGGGTCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGGTGTGTGCCCACCTCCTCCCTGACCCTTAACACTCCT GTCCTGCCCAGACCAACAGAGAGAGCTGTCCCTGAGACCCCGGAGAGAGCAGCTGCCGAAAGCTGCAGCCTTTC GCCCCAGGGCTTCCTTCTGGCCCCTCTGAGGATTCCCTAGGGCTGCCCCGCAGAGGGGCTTCCCCAAGCTCTGT TTTGAAGCCTGCAATGTGGAAAAGTGAGAAGTCAGAGGGAACAGGACAGGTGCAGCCGGGCTCTGAGGCCACACC TCACACCTCGCTGTTCCCCAACATCCCCTGAGCAGTGTGAGCTCATCTCACCAGATGAGAAGAGGCCCTGTGCAT TTCTTTGTTTGTTTGTTGCTGTTTTCCCCCACCCATCCAGTTCTCCTCAGCAAAGCAAATTCCTTAACACCTTT GGTGGAGAATTTCTTACCCAGACTTGGGGCTGTGATGCCCTTCAGTGCGTGGTGAGTGCAGCGTGTGTGCGTGTG CCTGTGTGTGAACCTGGGGGCCATCCTGGTGGCCTGGGAGCGTGAGGAGAGGCCCCCTGTGTGCTGGGTGAGTGG TGGGTGTGGGGTCAATGCAGTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGTCCCCAGCCTCCCAGCATCTG TGAGCGTCTGTTGGACTTTACAGAAGAGCCTCATCCCGTCTGCCCCTCACTCTGCCCTGGAATCAACATCTTCCG AGTCCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACTCCATAAACTGCTTCCCATTCCGCAGCCCAGTTCTGAT

## 355/2682 FIGURE 329B

CTCCAGCCCGGCTCAGTTCAGGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCCCTCTGA CTCGGAGCTACTTGAAACTTCTGCTCTTGCTAGGATTGGAGTCTACCTATCTCTTCCATTTGTCCCAGCTGGAGT CTGGCTGTGCACGTTTGTGTGTCCTTGTAAATATGTTTTAGGAAGAAAGCAAAAGGGACTGAACTAGCCTCTGGT AGGATTGCAGGGGTCCAGCCTTGCCTGTTTCCGAAGCCCCCACACTGCCTTTCGCCCCACTGAGACTGGTCCCCT CAAAAGGTAGACAAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCCTCAAAGTGGCTTTTTGTTAGACAAGGTT GAGCTTGGAAGGGAGGGTGGTGGCTGGCGCATCTTGACTGCCCCCTGTTGTCCCACACGTGGGGGGTGGTCAC CCCCTTCACTCCAGCCCGCCTGCCTTCAGCCTTCCATGAGCTTCACCTGCTTCCAACTTCACTTTGGAGGGGGT GGGGTCCGTTGGCATCAACACGGGGACCCTCTGCTTCACCAAAGCCCGAGCCCTCAGCCCCTGGGGAGAACAAAT GGCTGAGCTTTGATACCTGGGGTCGTCGAGAGGCTGCGGGGTGGCGGCAGTCCCAGGGGAGAGACACCACAGAAG GAGACCCAGACATCCCGAGGAAGTTCCCAGCAGAGCAAACTGCTTTCCAGCCTGAAGCCTGCTTAAACTGTGTGA TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCCGTCTGTAGATTTAACTGCTGAA ATTGTATCTCTCAGTAATTTTAGATGTCTTTTAAAAAATTGAAAAACAAAGTGTTAGACTGTGTGCGTGTGCGTT GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCCTTTCCCCTGCGCCCCATCCTCTCACGTCCCGCCC TGCCTCCACTTGGGGACCCTGCCTCGTGTCGTCTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC ACACATGCATAAAGGAAATCAAATGTTATTTTTAAGAAAATGGAAAATAAAAACTTTATAAAAACCC

## 356/2682 FIGURE 330

MRAPGCGRLVLPLLLLAAAALAEGDAKGLKEGETPGNFMEDEQWLSSISQYSGKIKHWNRFRDEVEDDYIKSWED
NQQGDEALDTTKDPCQKVKCSRHKVCIAQGYQRAMCISRKKLEHRIKQPTVKLHGNKDSICKPCHMAQLASVCGS
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSKQN
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAAINLDKYEVCIRPFFNSCDTYKDGRVSTA
EWCFCFWREKPPCLAELERIQIQEAAKKKPGIFIPSCDEDGYYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD
CDDIVGFSGDFGSGVGWEDEEEKETEEAGEEAEEEGEAGEADDGGYIW

## 357/2682 FIGURE 331

# 358/2682 FIGURE 332

 ${\tt MSIGVPIKVLHEAEGHIVTCETNTGEVYRGKLIEAEDNMNCQMSNITVTYRDGRVAQLEQVYIRGSKIRFLILPD} \\ {\tt MLKNAPMLKSMKNKNQGSGAGRGKAAILKAQVAARGRGRGMGRGNIFQKRR}$ 

## 359/2682 FIGURE 333

 ${\tt AAAGGATGATTCTTTTGGCCATCATTTGGTACAGTCTCATTTCCAAGTCATGTATAATCTTTATGGCTTCCAAGGCCAAGGAATTAAAATACTCTTTTACGT}$ 

# 360/2682 FIGURE 334

 ${\tt MFRRPVLQVLRQFVRHESETTTSLVLERSLNRVHLLGRVGQDPVLRQVEGKNPVTIFSLATNEMWRSGDSEVYQLGDVSQKTTWHRISVFRPGLRDVAYQYVKKGSRIYLEGKIDYGEYMDKNNVRRQATTIIADNIIFLSDQTKEKE}$ 

GTCACCGCCATGGCAGGCATCAAAGCTTTGATTAGTTTGTCCTTTGGAGGAGCAATCGGACTGATGTTTTTGATG  $\tt CTTGGATGTGCCCTTCCAATATACAACAAATACTGGCCCCTCTTTGTTCTATTTTTTACATCCTTTCACCTATT$  ${\tt CCATACTGCATAGCAAGAAGATTAGTGGATGATGATACAGATGCTATGAGTAACGCTTGTAAGGAACTTGCCATCTTT}$ CTTACAACGGGCATTGTCGTGTCAGCTTTTGGACTCCCTATTGTATTTGCCAGAGCACATCTGATTGAGTGGGGA GCTTGTGCACTTGTTCTCACAGGAAACACAGTCATCTTTGCAACTATACTAGGCTTTTTCTTGGTCTTTGGAAGC AAGGACGACTTCAGCTGGCAGCAGTGGTGAAAAGAAATTACTGAACTATTGTCAAATGGACTTCCTGTCATTTGT TGGCCATTCACGCACACAGGAGATGGGGCAGTTAATGCTGAATGGTATAGCAAGCCTCTTGGGGGTATTTTAGGT GCTCCCTTCTCACTTTTATTGTAAGCATACTATTTTCACAGAGACTTGCTGAAGGATTAAAAAGGATTTTCTCTTT TGGAAAAGCTTGACTGATTTCACACTTATCTATAGTATGCTTTTTTGTGGTGTCCTGCTGAATTTAAATATTTATG TGTTTTTCCTGTTAGGTTGATTTTTTTTGGAATCAATATGCAATGTTAAACACTTTTTTAATGTAATCATTTGCA TTGGTTAGGAATTCAGAATTCCGCCGGCTCTATTACTGGTCAAGTACATCTTTTCTCTTAAAATTATTTAGCCTC CAGACGGTTGGCATACGTTATAGACTGTATACTCAGTGCAAATATAGCTGCATTTATACCTCAGAGGGGCCAAGT GTTAATGCCCATGCCCTCCGTTAAGGGTTGTTGGTTTTACTGGTAGACAGATGTTTTGTGGATTGAAAATTATTT TATGGAATTGCTACAGAGGAGTGCTTTTCTTCTCAATTGTTAGAAGAATTTATGTTAAACTTTAAGGTAAGGGTG TAAAAACATTTTTGAGATAAGGTTTTTATTTATTTATTATTGTTAGAGTGAGTTGCAATGTGGGAAGAAATGA CATTGAAATTCCAGTTTTTGAATCCTGTTTCTATTTATAAGTGAAATTTGTGATCTCCTATCAACCTTTCATGTT TTACCCTGTTAAAATGGACATACATGGAACCACTACTGATGAGGGACAGTTGTATGTTTGCATCATATATGCCAG AGTTTAATAACACTTAGAAGTGTTTACTTACCTGGAAAATAATTGCTATGCCGTACATTCAGAGTGCCCCCTCCC CTGCAAGGCCTTGCCATGATTAACAAGTAACTTGTTAGTCTTACAGATAATTCATGCATTAACAGTTTAAGATTT AGACCATGGTAATAGTAGTTCTTATTCTCTAAGGTTATATCATATGTAATTTAAAAGTATTTTTAAGCCAAGTTT CCTGTATACCTCTGAACTGTTTTGATTTTGAGTTCATCATGATAGATCTGCTGTTTCCTTATAAAAGGCATTTGT TGTGTGAGTTAATGCAAAGTAGCCAAGTCCAGCTATATAGCAGCTTCAGAAACATACCTGACCAAAAAAATTCCCA GTAACCAGGCATGATCAATTTATAGTGGTCGTTTACATCTAATAATTATCAGGACTTTTTTCAGGAGTGGGTTAT AAATGGGAATAAATTTGGGATTTGTTCAGCTTTTTTACTAAAGATGCCTAAAGCCACAGGTTTTATTGCCTAACT TAAGCCATGACTTTTAGATATGAGATGACGGGAAGCAGGACGAAATATCGGCGTGTGGCTGGAGCCTTCCCACTG GAGGCTGAAAGTGGCTTGTGGTATTATAATGTTCAGATTTCAAGAGGAAGGTGCAGGTACACATGAGTTAGAGAG CCTTCCCTATTTTCTGTTCTGGATGTCAGTGCAGTGCACTGCTACTGTTTTATCCACTTGGCCACAGACTTTTTC TAACAGCTGCGTATTATTTCTATATACTAATTGCATTGGCAGCATTGTGTCTTTGACCTTGTATACTAGCTTGAC ATAGTGCTGTCTCTGATTTCTAGGCTAGTTACTTGAGATATGAATTTTCCATAGAATATGCACTGATACAACATT A.

# 362/2682 FIGURE 336

 ${\tt MAGIKALISLSFGGAIGLMFLMLGCALPIYNKYWPLFVLFFYILSPIPYCIARRLVDDTDAMSNACKELAIFLTTGIVVSAFGLPIVFARAHLIEWGACALVLTGNTVIFATILGFFLVFGSKDDFSWQQW}$ 

ATGAAGTACATTCTGGTTACTGGTGGTGTTATATCAGGAATTGGAAAAGGAATCATTGCCAGCAGTGTGGGCACA ATACTCAAGTCATGTGGTTTACATGTAACTTCAATCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTC TCTCCTTATGAGCATGGTGAGGTTTTTGTGCTGGATGATGGTGGGGGAAGTAGACCTTGACCTGGGTAACTATGAG CGGTTCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATGTCATTAACAAG GAACGGAAAGGAGATTACTTGGGGAAAACTGTCCAAGTTGTCCCTCATATCACAGATGCAATCCAGGAGTGGGTG ATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAACCTCAAGTGTGTTATTGAGCTTGGTGGAACC GTGGGGGACATAGAAAGCATGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAAGAGAGAACTTT TGTAACATCCACGTCAGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT GTTCGGGAACTTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA TACCGAGTCCCCTTGTTGTTAGAGGAGCAAGGGGTTGTAGATTATTTTCTTCGAAGACTTGACCTTCCTATTGAG AGGCAGCCAAGAAAAATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCTCTGTCATTAAGGCTCTGGAGCATTCTGCA CTGGCCATCAACCACAAATTGGAAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG CCCGTGCGCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGTT CGAGGAACAGAAGGAAAAATCCAAGCAATTGCCTGGGCTCGGAATCAGAAAAAGCCTTTTTTTGGGCGTGTGCTTA GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTCTACAGAGTTTGAC CCTACGACCAGTCATCCCGTGGTCGTAGACATGCCAGAACACAACCCAGGGCAGATGGGCGGAACCATGAGGCTG GGCAAGAGGAGAACCCTGTTCCAGACCAAGAACTCAGTCATGAGGAAACTCTATGGAGACGCAGACTACTTGGAA GAGAGGCACCGCCACCGATTTGAGGTGAATCCAGTCTGGAAAAAGTGTTTGGAAGAACAAGGCTTGAAGTTTGTT CACCCTGAGTTCCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGCCTCCTCCTGGCCTCTGTGGGGCGG CTCTCACATTACCTCCAGAAAGGCTGCAGGCTCTCACCCAGGGACACCTATAGTGACAGGAGTGGAAGCAGCTCC CCTGACTCTGAAATCACCGAACTGAAGTTTCCATCAATAAATCATGAC<u>TGA</u>TCTTGTAGCGGATGATTCTTCAAG TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAAACTTGTCACTTGCATGTCCCATCACGTGTACTGG CTCCTCTGTGGTGTCTGCCTGTTGCGTGACACTCTCCTTGCAGTTCTTGAGTTGCGGCAGAACATCGCGATGGGA ACCGATGGTGGGTGGGGCTGCAGATGTCCCCATCGGTCACCTTGTTTCTCAACTACCTCGCATCATTGCAGATCG TAGCGCGTTGCCTGTCGCTTTCCCTTGGATACCTAGACCGTTATAAAGTGTGCCACATGGACTTACCGAGCATGG CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATTCTCAGTGCCAACTGTGGCTGGTCCTCATTCAAA TGTGCGTGCGCTTCCTATTTCTAGGGCTGGGAAACACTCCTTGCATCAAGGGGTCACTTACAGAACAAAGAATCT TTTGGGGGAAACTTCCTCTAAAACCCTCTCATATATAGACAGCTTTGACTGGAGGGTCCATTTTTCTTCCAGGAT GGTGTTACTGCAGTTGAAGGCCAATATGAAGTTACTTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA 

# 364/2682 FIGURE 338

MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFVLDDGGEVDLDLGNYE RFLDIRLTKDNNLTTGKIYQYVINKERKGDYLGKTVQVVPHITDAIQEWVMRQALIPVDEDGLEPQVCVIELGGT VGDIESMPFIEAFRQFQFKVKRENFCNIHVSLVPQPSSTGEQKTKPTQNSVRELRGLGLSPDLVVCRCSNPLDTS VKEKISMFCHVEPEQVICVHDVSSIYRVPLLLEEQGVVDYFLRRLDLPIERQPRKMLMKWKEMADRYDRLLETCS IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEEPVRYHEAWQKLCSAHGVLVPGGFGV RGTEGKIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEFDPTTSHPVVVDMPEHNPGQMGGTMRL GKRRTLFQTKNSVMRKLYGDADYLEERHRHRFEVNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVGVQY HPEFLSRPIKPSPPYFGLLLASVGRLSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINHD

#### 365/2682 FIGURE 339

# 366/2682 FIGURE 340

 ${\tt MDTQKDVQPPKQQPMIYICGECHTENEIKSRDPIRCRECGYRIMYKKRTKRLVVFDAR}$ 

## 367/2682 FIGURE 341

## 368/2682 FIGURE 342

MGKWHVGGRRGSPRQWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRRRRRRRRRMRRMWATQGLAVRVALSVLPGSR ALRPGDCEVCISYLGRFYQDLKDRDVTFSPATIENELIKFCREARGKENRLCYYIGATDDAATKIINEVSKPLAH HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP KAASAPTDL

## 369/2682 FIGURE 343

CGAGCTGGAGAGGTGGTCGGAGAAGTAGGAACCTCCTGCCGGGCTCGTGGCGGCTTCTGTCCGCTCCGCGGAGGG
AAGCGCCTTCCCCACAGGACATCAATGCAAGCTTGAATAAGAAAAACAAATTCTTCCTCCTAAGCCATCGCATAT
CAGTTATACAGAAATACTACTTTGGGAAACAGTCTTCAGGAGAGCCTAGATGAGCTCATACAGTCTCAACAGATC
ACCCCCCAACTTGCCCTTCAAGTTCTACATTCAGTTTGATAAGGCTATAAATGCAGCACTGGCTCAGAGGGTCAGG
AACAGAGTCAATTTCAGGGGCTCTCTAAATACGTACAGATTCTGCGATAATGTGTGGACTTTTGTACTGAATGAT
GTTGAATTCAGAGAGGTGACAGAACTTATTAAAGTGGATAAAGTGAAAATTGTAGCCTGTGATGGTAAAAATACT
GGCTCCAATACTACAGAATGAATAGAAAAAATATGACTTTTTTACACCATCTTCTGTTATTCATTGCTTTTGAAG
AGAAGCATAGAAGAGACTTTTTATTTATTCTAGAATTGCAGAAATGACCACCTGTGCTATACCAGAGAATTCCA
GTAGAAAGAAACCTTGTAACTCTGTAGCCTCTTACATCACCTTTTATAAAACTCTG
TAAGGACAAAAGTTGTTGCCTTCCTAAGAACCTTCTTTAATAAACTCATTTTAAAACTCTG

# 370/2682 FIGURE 344

 ${\tt MAYQLYRNTTLGNSLQESLDELIQSQQITPQLALQVLLQFDKAINAALAQRVRNRVNFRGSLNTYRFCDNVWTFV}\\ {\tt LNDVEFREVTELIKVDKVKIVACDGKNTGSNTTE}$ 

GAATTCCCCCCCCCCCAGTGCTCCGCGCGCTCTTGACGTCCGGAGCCCCTGGAGTAGGCGCTTCCGGCCATT CATACTGCAGTCGGTCAGTGTTCGGTTGAAGGATTCTGTGTGCTGTCGGACCCAGAGGGTGACGGCCGCCTAGG ATGAAGCTCGTGAGATTTTTGATGAAATTGAGTCATGAAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCGGTATTTTATTCTACCAGACAGTTTACCT CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA GGAAGAGGAAGAGGAAGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGA<u>TAA</u>TGTCTCTCAAGATTT CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTTATGTCAGTTTTTAATAAACATAAATG TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTTAGTAGTTTCCTCCACATTCACGAAATTACCACAGTGAGA GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAACTAAAATTTTTCTTTTT CTTTTTATGATGAATAAGGTTAAAATAAAAGCCTTAGACAAATTAAATTTGGCAGAGTTTAATTGAGCAAAGGAC AATTCACAAATCAGGTAGCCCCTGAACCATAATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT GGACAGAAGGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGGATTAGTTACAGTTCAGCGTTT TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACTTGAGATATGT AAAGAGACTTTAGGCTAAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG GTAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTTTCTTTTG CTTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT ATCAGTTATGAGCAGTGTTAAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCTCCTTTATTAAGGGGTTC 

# 372/2682 FIGURE 346

MKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSMNTHLKAVKMTLKNREPVQLETLSIRGNNIRYFILPDSLP LDTLLVDVEPKVKSKKREAVAGRGRGRGRGRGRGRGRGRGRGRGRGRGRGRGRGRGR

GAGTGGCTGTTGAGCGGCGCCGCGGGAGTTCCGCAGGTTTCCCGTGTTCGCAGCGGAGCCGGAGGCCAGCTGAAC CCGGCCGTGGGATCCCGGATAGGAGGAGGAGGGGACCCATAGGACGCGTTAAC<u>ATG</u>GACCTGGAAAACAAAGTGA AGAAGATGGGCTTAGGTCACGAGCAAGGATTTGGAGCCCCTTGTTTAAAATGCAAAGAAAAATGTGAAGGATTCG AACTGCACTTCTGGAGAAAAATATGTCGTAACTGCAAGTGTGGCCAAGAAGAGCATGATGTCCTCTTGAGCAATG AAGAGGATCGAAAAGTGGGAAAACTTTTTGAAGACACCAAGTATACCACTCTGATTGCAAAACTAAAGTCAGATG GAATTCCCATGTATAAACGCAATGTTATGATATTGACGAATCCAGTTGCTGCCAAGAAGAATGTCTCCATCAATA CAGTTACCTATGAGTGGGCTCCTCCTGTCCAGAATCAAGCATTGGCCAGGCAGTACATGCAGATGCTACCCAAGG AAAAGCAGCCAGTAGCAGGCTCAGAGGGGGCACAGTACCGGAAGAAGCAGCTGGCAAAGCAGCTCCCTGCACATG ACCAGGACCCTTCAAAGTGCCATGAGTTGTCTCCCAGAGAGGTGAAGGAGATGGAGCAGTTTGTGAAGAAATATA TTCCTGGAGGGGATAGAAGCACCCCAGCAGCAGTGGGGGCCATGGAGGACAAATCTGCTGAGCACAAAAGAACTC TATTCAGCAATGAGTATACCCAGGCAGAAAACCAGAATTGGCACCTGAAACACTTCTGCTGCTTTGACTGTGATA GCATTCTAGCTGGGGAGATATACGTGATGGTCAATGACAAGCCCGTGTGCAAGCCCTGCTATGTGAAGAATCACG CTGTGGTGTCAAGGATGCCACAATGCCATCGACCCAGAAGTGCAGCGGGTGACCTATAACAATTTCAGCTGGC ATGCATCCACAGAGTGCTTTCTGTGCTCTTGCTGCAGCAAATGCCTCATTGGGCAGAAGTTCATGCCAGTAGAAG GGATGGTTTTCTGTTCAGTGGAATGTAAGAAGAGGATGTCT<u>TAG</u>GAGGAGGGCACCCAGAAGTATCGAGCCATAG CTTGGTTTAAGCATTTGATTTGTAAAACAGTAAATAATTGTATCTTTCCATAGCTTTTCAAATGTGAAATCATTT TTGGAAGCTTGGATCTCATTAAACTTCATGTCTCTATTCCATTTGTGCCACACACTTAAAAGTTAGTGTACTGAA TGGAAAGATGAGCATTCCTAGTTCTACACTTCTTTTTTCCCCCTCATGTGTAAAATGAAAAAGAAAACTAAATTTG CCCTAATACCAAGGGCGCTACGTTTATTGCCTCGTCTTATTCACTGACCTTTGTAATGATACACAGTGAATTCTT TTTGACAAAGAGAAATGCAGTGTAGTATGCAGAGCTGCTGTTTTAATGCCCTATGCATTTACTCTTTCCTGATTT AGGCAGAGGTGGCATTTTCTTTATTGCATTTCTCTATTTTTTTAATGTACCCTACCTTCAGTATTCTCTTTGTAA GTTGGTGACTTGCATCTGTGGCCTTGAATATTTTATTATCACATGTGGCATAACAGTATCCACACTTTTTAGTTC TTTATTTTTTTTTTTTTTTGAGCAATTCTCCTGCCTCAGCCTCCCAAATAGCTGGGATTACAGGTGCATGCCA CCACACCCAGCTAATTTTTGTATTTTTAGTAGAGACAGGTTTTCACCATGTTAGCCAGGCTGGTCTCAAACTCCT GACCTCAGATGATCCGCCTGCCTTGGCCTCCCAAAGTGCTGGGATTACAGGTGTGGGAGCCACCATGCCTGACCC ACACACTTTTTACTTGTATAGATGATTTTTGGCTTGGACATAAAAGCCAAGCCAACCCATTTGCTTTTAATCCAAA TTTTTTTGCATGGTTTTTATTCTTTCCTAATGGATCCTGTTTTATAATACTTCCAAGCCTGTCCATGGATATATC AAATGTCTTCACTTGTATGTTTTCATGGCTAGGTATTTCTAATGTTTATTCTTCCCTGTGTACTTCTACACATAG AAAAAAAAAAA

## 374/2682 FIGURE 348

MDLENKVKKMGLGHEQGFGAPCLKCKEKCEGFELHFWRKICRNCKCGQEEHDVLLSNEEDRKVGKLFEDTKYTTL IAKLKSDGIPMYKRNVMILTNPVAAKKNVSINTVTYEWAPPVQNQALARQYMQMLPKEKQPVAGSEGAQYRKKQL AKQLPAHDQDPSKCHELSPREVKEMEQFVKKYKSEALGVGDVKLPCEMDAQGPKQMNIPGGDRSTPAAVGAMEDK SAEHKRTQYSCYCCKLSMKEGDPAIYAERAGYDKLWHPACFVCSTCHELLVDMIYFWKNEKLYCGRHYCDSEKPR CAGCDELIFSNEYTQAENQNWHLKHFCCFDCDSILAGEIYVMVNDKPVCKPCYVKNHAVVCQGCHNAIDPEVQRV TYNNFSWHASTECFLCSCCSKCLIGQKFMPVEGMVFCSVECKKRMS

### 375/2682 FIGURE 349A

GCACTGCTGCCACCGCCGCCGCCGCCGCCGCCGCCGCTGCTGCTGCCGGTGCTAAGGAGTTCGCTGGA GCCCTTTCCTCAGACCCGGCCCGGTCTTCGCGCCCGGACTCCTGGCGCCCAGCGCTAGGCGCACTCACCGCTCTGA CCTTCTTGCCATCGCCCCAGACATGGGGAACGCGGCGACCGCCAAGAAAGGCAGCGAGGTGGAGAGCGTGAAAGA GTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAAATGGGAGAATCCAACTCAGAATAATGCCGGACTTGAAGA TTTTGAAAGGAAAAAACCCTTGGAACAGGTTCATTTGGAAGAGTCATGTTGGTAAAACACAAAGCCACTGAACA GTATTATGCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAAACTGAAGCAAATAGAGCATACTTTGAATGAGAA AAGAATATTACAGGCAGTGAATTTTCCTTTCCTTGTTCGACTGGAGTATGCTTTTAAGGATAATTCTAATTTATA CATGGTTATGGAATATGTCCCTGGGGGTGAAATGTTTTCACATCTAAGAAGAATTGGAAGGTTCAGTGAGCCCCA TGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTCGAGTACCTCCATTCACTAGACCTCATCTACAGAGATCT AAAACCTGAAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAGACTTTGGGTTTGCCAAAAGAGTTAA AGGCAGAACTTGGACATTATGTGGAACTCCAGAGTATTTGGCTCCAGAAATAATTCTCAGCAAGGGCTACAATAA GGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAGCTGGCTATCCCCCATTCTTTGCAGACCA ACCAATTCAGATTTATGAAAAGATTGTTTCTGGAAAGGTCCGATTCCCATCCCACTTCAGTTCAGATCTCAAGGA CCTTCTACGGAACCTGCTGCAGGTGGATTTGACCAAGAGATTTGGAAATCTAAAGAATGGTGTCAGTGATATAAA AACTCACAAGTGGTTTGCCACGACAGATTGGATTGCTATTTACCAGAGGAAGGTTGAAGCTCCATTCATACCAAA GTTTAGAGGCTCTGGAGATACCAGCAACTTTGATGACTATGAAGAAGAAGATATCCGTGTCTCTATAACAGAAAA ATGTGCAAAAGAATTTGGTGAATTT<u>TAA</u>AGAGGAACAAGATGACATCTGAGCTCACACTCAGTGTTTGCACTCTG TTGAGAGATAAGGTAGAGCTGAGACCGTCCTTGTTGAAGCAGTTACCTAGTTCCTTCATTCCAACGACTGAGTGA CTGTGCCATAACACAGTACTAGACCACTTTCTTACTTCTCTTTGGGTTGTCTTTCTCCTCCTACATCCATTTC TTCCTTTTCCAATTTCATTGGTTTTCTCTAAACAGTGCTCCATTTTATTTTGTTGGTGTTTCAGATGGGCAGTGT TATGGCTACGTGATATTTGAAGGGAAGGATAAGTGTTGCTTTCAGTAGTTATTGCCAATATTGTTGTTGGTCAAT GGCTTGAAGATAAACTTTCTAATAATTATTATTTCTTTGAGTAGCTCAGACTTGGTTTTGCCAAAACTCTTGGTA ATTTTTGAAGATAGACTGTCTTATCACCAAGGAAATTTATACAAATTAAGACTAACTTTCTTGGAATTCACTATT CTGGCAATAAATTTTGGTAGACTAATACAGTACAGCTAGACCCAGAAATTTGGAAGGCTGTAGATCAGAGGTTCT AGTTCCCTTTCCCTCCTTTTATATCCTCCTCTCCTTGAGTAATGAAGTGACCAGCCTGTGTAGTGTGACAAACGT GTCTCATTCAGCAGGAAAAACTAATGATATGGATCATCACCCAGATTCTCTCACTTGGTACCAGCATTTCTGTAG GTATTAGAGAAGAGTTCTAAGTTTTCTAAACCTTAACTGTTCCTTAAGGATTTTAGCCAGTATTTTAATAGAACA TGATTAATGAAAGTGACAAATTTTAAATTTTCTCTAATAGTCCTCATCATAAACTTTTTAAAGGAAAATAAGCAA ACTAAAAAGAACATTGGTTTAGATAAATACTTATACTTTGCAAAGTCAAAAATGGCTTGATTTTTGGAAACAATA TAGAGGTATTCATATTTAAATGAGGGTTTACATTTGTTTTGTTTTGTAACCGTTAAAAAGAAGTTGTTTCCAGCT AATTATTGTGGTGTACTATATTTGTGAGCCTAGGGTAGGGGCACTGCTGCAACTTCTGCTTCATCCCATGCCTC ATCAATGAGGAAAGGGAACAAAGTGTATAAAACTGCCACAATTGTATTTTAATTTTGAGGTATGATATTTTCAGA TTGAGAGGTTAGTTTTTTTCCTACACTTTTTTTTGCCAACTGACTTAACAACATTGCTGTCAGGTGGAAATTTCA AGCACTTTTGCACATTTAGTTCAGTGTTTGTTGAGAATCCATGGCTTAACCCACTTGTTTTGCTATTTTTTTCTT AATCATTCTATTTGCTTTATTATCGGTGCAGGTAGGTCATTAACACCACTTCTTTTCATCTGTACCACACCCTGG GTGTTTCTGCATGGTAATGTCATGTAAATGCTGATATTGATTTCACTGGTCCATCTATATTTAAAACGTGCAAGA AAAAATAAAATACTCTGCTCTAGCAAGTTTTGTGTAACAAAGGCATATCGTCATGTTAATAAATTTAAAACATC ATTCGTATAAAATATTTTAATTTTCTTGTATTTCATTTAGACCCAAGAACATGCTGACCAATGTGTTCTATATGT AAACTACAAATTCTATGGTAGCTTTGTTGTATATTATTGTAAAATTATTTTAATAAGTCATGGGGATGACAATTT GATTATTACAATTTAGTTTTCAGTAATCAAAAAGATTTCTATGAATTCTAAAAAAATATTTTTTTCTATGAAATTA CTAGTGCCCAGCTGTAGAATCTACCTTAGGTAGATGATCCCTAGACATACGTTGGTTTTGAGGGCTATTCAGCCA TTCCATTTTACTCTCTATTTAAAGGCCGTGAGCAAGCTTGTCATGAGCAAATATGTCAAGGGAGTCAATTTCTGA

## 376/2682 FIGURE 349B

## 377/2682 FIGURE 350

HCCCHRRRRRAAAPLLLPVLRSSLEPFPQTRPGLRARTPGASARRTHRSDGCRRGSCPRLWSGGHGPSPPSLPXP LLAIAPDMGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKTLGTGSFGRVMLVKHKATEQ YYAMKILDKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMVMEYVPGGEMFSHLRRIGRFSEPH ARFYAAQIVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDFGFAKRVKGRTWTLCGTPEYLAPEIILSKGYNK AVDWWALGVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFPSHFSSDLKDLLRNLLQVDLTKRFGNLKNGVSDIK THKWFATTDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRVSITEKCAKEFGEF

GCAGCGAGGTGGAGAGCGTGAAAGAGTTTCTAGCCAAAGCCAAAGAAGACTTTTTGAAAAAAATGGGAGAATCCAA CTCAGAATAATGCCGGACTTGAAGATTTTGAAAGGAAAAAAACCCTTGGAACAGGTTCATTTGGAAGAGTCATGT TGGTAAAACACAAAGCCACTGAACAGTATTATGCCATGAAGATCTTAGATAAGCAGAAGGTTGTTAAACTGAAGC AAATAGAGCATACTTTGAATGAGAAAAGAATATTACAGGCAGTGAATTTTCCTTTCCTTGTTCGACTGGAGTATG CTTTTAAGGATAATTCTAATTTATACATGGTTATGGAATATGTCCCTGGGGGTGAAATGTTTTCACATCTAAGAA GAATTGGAAGGTTCAGTGAGCCCCATGCACGGTTCTATGCAGCTCAGATAGTGCTAACATTCGAGTACCTCCATT CACTAGACCTCATCTACAGAGATCTAAAACCTGAAAATCTCTTAATTGACCATCAAGGCTATATCCAGGTCACAG ACTTTGGGTTTGCCAAAAGAGTTAAAGGCAGAACTTGGACATTATGTGGAACTCCAGAGTATTTGGCTCCAGAAA TAATTCTCAGCAAGGGCTACAATAAGGCAGTGGATTGGTGGGCATTAGGAGTGCTAATCTATGAAATGGCAGCTG GCTATCCCCCATTCTTTGCAGACCAACCAATTCAGATTTATGAAAAGATTGTTTCTGGAAAGGTCCGATTCCCAT CCCACTTCAGTTCAGATCTCAAGGACCTTCTACGGAACCTGCTGCAGGTGGATTTGACCAAGAGATTTGGAAATC TAAAGAATGGTGTCAGTGATATAAAAACTCACAAGTGGTTTGCCACGACAGATTGGATTGCTATTTACCAGAGGA AGGTTGAAGCTCCATTCATACCAAAGTTTAGAGGCTCTGGAGATACCAGCAACTTTGATGACTATGAAGAAGAAG ATATCCGTGTCTCTATAACAGAAAATGTGCAAAAGAATTTGGTGAATTT<u>TAA</u>AGAGGAACAAGATGACATCTGA GCTCACACTCAGTGTTTGCACTCTGTTGAGAGATAAGGTAGAGCTGAGACCGTCCTTGTTGAAGCAGTTACCTAG TTCCTTCATTCCAACGACTGAGTGAGGTCTTTATTGCCATCATCCGTGTGCGCACTCTGCATCCACCTATGTAAC AAGGCACCGCTAAGCAAGCATTGTCTGTGCCATAACACAGTACTAGACCACTTTCTTACTTCTCTTTGGGTTGTC TTTCTCCTCTCCTACATCCATTTCTTCCTTTTCAATTTCATTGGTTTTCTCTAAACAGTGCTCCATTTTATTTTG TTGGTGTTTCAGATGGGCAGTGTTATGGCTACGTGATATTTGAAGGGAAGGATAAGTGTTGCTTTCAGTAGTTAT TGCCAATATTGTTGTTGGTCAATGGCTTGAAGATAAACTTTCTAATAATTATTATTTCTTTGAGTAGCTCAGACT TGGTTTTGCCAAAACTCTTGGTAATTTTTGAAGATAGACTGTCTTATCACCAAGGAAATTTATACAAATTAAGAC TAACTTTCTTGGAATTCACTATTCTGGCAATAAATTTTGGTAGACTAATACAGTACAGCTAGACCCAGAAATTTG GAAGGCTGTAGATCAGAGGTTCTAGTTCCCTTTCCCTCCTTTTATATCCTCCTCCTCTCTTGAGTAATGAAGTGACC AGCCTGTGTAGTGTGACAAACGTGTCTCATTCAGCAGGAAAAACTAATGATATGGATCATCACCCAGATTCTCTC ACTTGGTACCAGCATTTCTGTAGGTATTAGAGAAGAGTTCTAAGTTTTCTAAACCTTAACTGTTCCTTAAGGATT TTAGCCAGTATTTTAATAGAACATGATTAATGAAAGTGACAAATTTTAAATTTTCTCTAATAGTCCTCATCATAA ACTTTTTAAAGGAAAATAAGCAAACTAAAAAGAACATTGGTTTAGATAAATACTTATACTTTGCAAAGTCAAAAA TGGCTTGATTTTTGGAAACAATATAGAGGTATTCATATTTAAATGAGGGTTTACATTTGTTTTGTTAACCG TTAAAAAGAAGTTGTTTCCAGCTAATTATTGTGGTGTACTATATTTGTGAGCCTAGGGTAGGGGCACTGCTACAA CTTCTGCTTTCATCCCATGCCTCATCAATGAGGAAAGGGAACAAAGTGTATAAAACCTGCCACAATTGTATTTTA ATTTTGAGGTATGATATTTTCAGATATTTCATAATTTCTAACCTCTGTTCTCTCAGTAAACAGAATGTCTGATCG CACTTGTTTTGCTATTTTTTTTTTTTTTAATTTTCCCCATCTGATTTTATCTCTGCGTTTCAGTGACCTACC ATCTATATGTCTTTCGGTTATCAAGTGTTTCTGCATGGTAATGTCATGTAAATGCTGATATTGATTTCACTGGTC CATCTATATTTAAAACGTGC

## 379/2682 FIGURE 352

MGNAATAKKGSEVESVKEFLAKAKEDFLKKWENPTQNNAGLEDFERKKTLGTGSFGRVMLVKHKATEQYYAMKIL DKQKVVKLKQIEHTLNEKRILQAVNFPFLVRLEYAFKDNSNLYMVMEYVPGGEMFSHLRRIGRFSEPHARFYAAQ IVLTFEYLHSLDLIYRDLKPENLLIDHQGYIQVTDFGFAKRVKGRTWTLCGTPEYLAPEIILSKGYNKAVDWWAL GVLIYEMAAGYPPFFADQPIQIYEKIVSGKVRFPSHFSSDLKDLLRNLLQVDLTKRFGNLKNGVSDIKTHKWFAT TDWIAIYQRKVEAPFIPKFRGSGDTSNFDDYEEEDIRVSITEKCAKEFGEF

## 380/2682 FIGURE 353A

CCCGGGCGAGCCCGCCGTGCGCACAGCTCTGCCCGCCGCCCCTGGAGCGGATCCCCAGCCGTCCCTGGGCGTTCT GAAAAAGAAGAGGCAGACTGAAATAGAAGGCAAGCGACAACAGCTTGACGAGCAGATACTTCTGCTGCAGCAT TCCAAGTCCAAAGTGCTTCGGGAGAAATGGCTGCTGCAGGGCATACCCGCTGGAACTGCCGAAGAGGAGGAAGCC AGGAGGCGGCAGTCTGAAGAGGATGAGTTCAGAGTCAAGCAACTTGAAGATAACATTCAGAGGCTGGAGCAAGAA ATACAAACGCTAGAAAGTGAAGAGTCCCAGATATCTGCCAAAGAGCAAATCATCCTAGAGAAACTGAAGGAAACA GAAAAATCCTTCAAGGACTTTCAGAAGGGTTTCTCCAGTACGGATGGAGATGCAGTAAATTACATTTCCTCCCAG CTTCCCGACCTGCCAATCCTCTGTTCACGAACAGCAGAACCATCACCTGGGCAGGACGGGACCAGCAGAGCGGCT GGAGTCGGGTGGGAGAATGTGCTGCTAAAGGAAGGTGAGTCAGCCTCGAACGCCACAGAAACATCCGGCCCAGAC ATGACTATCAAGAAGCCTCCCCAGCTTTCTGAGGATGATATCTGGCTAAAAAGCGAGGGAGACAACTATAGTGCC ACCCTCCTGGAGCCTGCCAGCTCTCTTTCCCCAGATCACAAAAACATGGAAATTGAGGTGTCTGTTGCAGAA TGTAAAAGTGTTCCTGGAATCACCTCTACCCCACATCCCATGGACCATCCCTCCGCTTTCTATTCACCCCCGCAT AATGGCCTCCTTACTGATCACCACGAATCCCTGGATAATGATGTTGCCAGAGAGATCCGCTATCTAGATGAGGTG CTAGAGGCCAACTGCTGTGATTCTGCTGTGGATGGAACGTACAATGGAACATCCTCCCCAGAGCCTGGTGCAGTG TCCCCCAGCCAGCCTAGAGATGCGCTGGGGGACAGCCTGCAGGTGCCTGTCAGCCCCAGCTCCACAACCAGCTCA CGGTGTTCTTCCCGAGATGGAGAGTTCACTCTCACCACACTGAAAAAGGAGGCCAAGTTTGAGCTGCGTGCCTTC CCTGGCATTGCAGCAAAATGGTGGAATCCCCCGCAGGAAAAAACCATCGAGGAGCAGCTGGACGAGGAACATCTG GAGTCGCACAAAAAGTACAAGGAGCGCAAAGAGAGAGAGGGCACAGCAGGAACAGTTGCTGCTGCAGAAGCAGTTA CAGCAGCAGCAGCAGCCCCCATCGCAGCTCTGCACAGCCCCTGCCTCTTCTCATGAACGCGCAAGCATGATT GACAAAGCAAAGGAGGACATTGTCACAGAGCAGATAGATTTCTCTGCTGCTCGCAAACAATTTCAGCTGATGGAG AATTCCAGGCAAGCGGTGGCCAAGGGCCAGAGTACACCCAGGCTGTTCTCCATCAAGCCTTTCTACAGGCCTCTG GGGTCAGTCAACTCAGACAAGCCACTGACTAATCCGAGACCACCTTCTGTCGGGGGACCTCCAGAAGACAGTGGT GCCTCAGCCGCCAAGGGACAGAAATCCCCCGGTGCCCTGGAGACCCCATCGGCAGCAGGAAGCCAGGGCAACACA GCCTCTCAGGGGAAGGAAGGCCCTACAGCGAGCCTTCTAAACGTGGGCCCTTATCTAAACTGTGGGCTGAGGAT GGAGAATTTACGAGCGCCCGGGCTGTCCTCACTGTGGTCAAGGATGATGACCATGGGATTTTGGATCAGTTCTCA AGATCTGTCAATGTCTCCTTGACCCAAGAGGAGCTTGACTCTGGTCTGGACGAATTGTCGGTGAGGTCTCAGGAT ACCACAGTCCTGGAGACCCTATCCAATGATTTCAGCATGGACAACATCAGTGACAGCGGGGCATCCAATGAGACA ACCAATGCCCTCCAGGAAAATTCACTGGCTGATTTTTCTCTGCCCCAGACACCCACAAACTGACAACCCCTCAGAG GGCCGAGGAGAAGGCGTCTCCAAGTCATTTAGTGATCATGGTTTCTATTCCCCTTCCTCCACGCTGGGGGACTCT CCGTTGGTTGATGACCCCTTGGAGTATCAGGCTGGCCTCCTGGTGCAGAATGCCATTCAACAAGCCATAGCCGAG CAGGTGGATAAAGCTGTGTCCAAAACCAGCAGGGATGGAGCAGAGCAACAGGGACCTGAAGCGACTGTAGAGGAA GCTGAAGCTGCGGCTTTCGGCTCAGAAAAGCCTCAGAGCATGTTTGAGCCACCTCAGGTGTCTTCTCCTGTTCAA GAGAAAAGGGATGTATTACCAAAGATTCTGCCTGCTGAAGACAGGGGGCCTCAGGGAAAGGGGGCCCCCCAGCCA TCGGAGGCAGCTGAGCAGAGCACAGCCTCCCTCCTGGCCACTCAAGAATCTGACGTGATGGTTGGGCCTTTC AAGCTGAGGTCCAGGAAACAGCGGACTTTGTCCATGATTGAGGAAGAGATCCGAGCAGCTCAGGAAAGGGAAGAG GAGCTGAAGAGGCAGAGACAAGTCTTGCAGAGTACGCAGAGCCCCAGGACAAAGAATGCCCCATCACTGCCCTCC AGAACATGCTACAAAACTGCTCCAGGGAAAATAGAGAAAGTCAAACCTCCTCCATCCCCACCACTGAAGGCCCC AGCTTGCAGCCTGACTTAGCCCCTGAAGAGGCTGCCGGAACCCAGCGGCCCAAGAATCTGATGCAGACCCTCATG GAAGACTATGAGACACACAAATCTAAAAGGCGCGAGAGAATGGATGATAGTAGTTACACTTCTAAGTTACTGTCT TGCAAGGTGACTTCCGAGGTCCTCGAGGCCACACGGGTTAATCGAAGAAGAGCGCACTGGCTTTGCGCTGGGAA GCAGGGATCTATGCCAACCAGGAGGAAGAAGACAACGAA<u>TAA</u>ACTTCCTTCAACCCAGGAAGCGTCTTTGGTGCT 

#### 381/2682 FIGURE 353B

AGCAATCCTTATGTAGACCAGAAGCTGCAATATACAATGATGAAAATGAAACGAAAAGGAAGTCCCCCCATCAGA CTCTGGACACCCAGGAATCAAAAGAGAAAGGACTTTTTTGGTGACTCAATCCCAGTGTCTGGTTTGGGGCCAATC TACAATGGATCCAAAAGGACAAAACATGTTACAAGCAAATCAACATAGTTGCTGCAGGCGGAACTGAGACCAGCC TCTCTGGGCGATGAAGGACAATGGTGGTAGGGCCACTTAGAGAGCAGTAGGGCCCAGGCTGGTGCAGCCTACATG GCACAGGATATTTCCCTGCACCAGTTTCCCACCTGTCACTTGCAGCATCAGAGGGTGTTGCATTAACTCCATTTT CTCCAGCAGCCATAAAATGAATGGCGTTTCTCTCCATATTTGCCCAGAAGAGGCAGTTATGATTCCACTTCTCCT ACATTTAATTATTTTTAATTGAGAACAACTCATGATCACAATTCATAAAATCCATATTTTAAGACAATAGTTCTT TTAGCTTTAGGATCGTGTCTGCTTATAATATTCACTGATCTGCAGTTTATGAGAACACATTTTCACAGTTATGTT TCTTCATAGGAAAACTATATTTAGTGGGCAACAACTATTTTTATGATGGGATGGGGAGTATATACACGTATAGA AACTCTGCCTTGGAGAGGTAGATGATAAGAAATAAAAAGGTGTTTATAACTATTTTGTATTATAAAGTGGGCCTT ACCAGTGTGTTTCAGGATGATACAAAGAAAATATAGAATAGAAATAAGTGCAGGCTTGGAATCAGCTACAAATC CTAAAGATGGGGTGTGTGTGTGTGTGTGTGTGTGTACACCATTGTGTGTTTGTAAAATGTGTATGTTCA TGAGTAAGGGTGTGTGTGTGTGTATTAAAATTCCAGAGTGACCGTGGCACTTGGGTGTACAGGTAATTCCTCC TGCAGTATTTGTAATATTAAGTTGACCTAACAAGGTATTTGCATGAGTCACAATTACAAAGTTTTGAGCGGTTTT GTAATTTGACATTTAGGAGAGTCTCCTATTTATTCTCATACTTTACATTCATGCTTAGTATACTATAGAGGATGC CAGCTTTAATCTTTCTGTCATTTAAAGCAATATGATAAGGGTATTCAATAATTGGGTGCCCTAAATTTCTGGATG TGTGGTTTTTTAAAAAGCAATAATTAACTCAGACCTCACTAAAAATCATTTTTGTTTTTATATATTGTTATGTCAT CTTCTTTTATTAGACTAGTGTTGACTTTGGGGGGGGGACATTTATTCACAAATGAGAAGTAGGCACAAAGTAAAAA ATGGAACCATCTACTAACAAGGATCCTTTAAAACTGCCAAGGGAGCTCTAACTTGAAGCCACATCCTACAGATGG AACAAAATGTGCTAGCCACTGGGGACGCAAAACAAGTAAGATCCCTGTTGCAAGAAATTCATTTTATAGTGAGGG AGGTTGGCATGGAGACTAAAATTCTCAGGAAAATGAGATCCGTGTTAGATTAGAAGTCCTGATGTGAAATGGGAG GACTCAGGAAGGAGGATCGTCTTTACCTGAGGATTTCTAGCCAGAGGTCCCAGATGCCTGGGCTGAGAACCCAGC GATAAGGGGGCGTTCCCAAAGCAGACACAGGGATAAGAACAGAGGAGGCAGCAGCATTGCACAGCCCCAGGCACA GTGGCAGTTAGGATGGCTGGAGAGTAGGATAGTTCTATGGGTTGCCCAAAAAATGTGATGCGCTTCATGTTTTCT CTGACTCATGGATCTGGTAGAGACCATAGACATGATATAGACTAACTTCCCCATTTTTCACAAGAGGAAACCATC CTTATGACTTACCTTAAAGTTTTTTGTTCTGTTTTGAAGGAAACCATGTGCTTCATGAAACCTACAGTTGACAAG AGAATGTACAGCTAAGAGAAAAGCTTAAGAGGCCACACTATTCGCGGAATGGCTTTAGAGGCAGATGAAGTGGTC TTTGACCACAGTTGATTGAACCAGAGCACTTATTGCTTAAAGAATAACAGAGTTCTAGAGCTGGGGGTTCTTGGG CCATGCTCCGTGTGTGGATAAGGAAAGAATACTGTTTCTGGGACTCTCCCACAGTCACAAAGCTGTTTTCACTG TGGCCCCTACATCTCTTAACTTTTGCTATTACTCCTATGCTGCCTTCCGGATTACTGCTGTCTATCTTCTTGCTC CACTCACTGAAGATCCTATTATAATCCCATGAAAATGTAAATTACAGTTTACTTGGGAGAGCCAGATTTTCTCTG TGCTCTTGAGTTTTTTATTCATTCAAGAAACCTTGGGCCACCGCTTTGTACATAGCACCGTGCTAGGCTCTGGGA TCCCAAATGGACCCTTTTAACTTTCTGAAGATGGGACCGTCCCCTGGAGGAAAGTCATTCCTGCCTAATCCATCG AGAGAAAGAGGCTTACGAAAAACTTTGCCTCTGATGCTCAGCCCCACCCCCAAATAGCACACAAGCTTGTTAACC CCACCTCTTACAAAATGTTTAGATTCTGTAGGTGTTAAAAGCCTTTCTGGAAGTATTGCATTCTGCCGTGTTTAT AGGTGTTCACTTTCCTCCAGAGCTGATTAACTACTGACATGACTTGGCTTTCTCATCCAGAAATTATGGAAACAG GGTCTGTCAGTGGCAGGAGGCCGTGCTGTGTTTTACTTGGATGACACAATGCAGTTTACTTGCCTCTTCATACCC ATATATATATAAAGTGTAACAAGGAACACTAAAACAGTGTTGATTCTTGTCTCTGAAGACAAATAATTAAACC 

## 382/2682 FIGURE 353C

## 383/2682 FIGURE 354

MAEAELHKERLQAIAEKRKRQTEIEGKRQQLDEQILLLQHSKSKVLREKWLLQGIPAGTAEEEEARRRQSEEDEF RVKQLEDNIQRLEQEIQTLESEESQISAKEQIILEKLKETEKSFKDFQKGFSSTDGDAVNYISSQLPDLPILCSR TAEPSPGQDGTSRAAGVGWENVLLKEGESASNATETSGPDMTIKKPPQLSEDDIWLKSEGDNYSATLLEPAASSL SPDHKNMEIEVSVAECKSVPGITSTPHPMDHPSAFYSPPHNGLLTDHHESLDNDVAREIRYLDEVLEANCCDSAV DGTYNGTSSPEPGAVVLVGGLSPPVHEATQPEPTERTASRQAPPHIELSNSSPDPMAEAERTNGHSPSQPRDALG DSLQVPVSPSSTTSSRCSSRDGEFTLTTLKKEAKFELRAFHEDKKPSKLFEDDEHEKEQYCIRKVRPSEEMLELE KERRELIRSQAVKKNPGIAAKWWNPPQEKTIEEQLDEEHLESHKKYKERKERRAQQEQLLLQKQLQQQQQPPSQ LCTAPASSHERASMIDKAKEDIVTEQIDFSAARKQFQLMENSRQAVAKGQSTPRLFSIKPFYRPLGSVNSDKPLT NPRPPSVGGPPEDSGASAAKGQKSPGALETPSAAGSQGNTASQGKEGPYSEPSKRGPLSKLWAEDGEFTSARAVL TVVKDDDHGILDQFSRSVNVSLTQEELDSGLDELSVRSQDTTVLETLSNDFSMDNISDSGASNETTNALQENSLA DFSLPQTPQTDNPSEGRGEGVSKSFSDHGFYSPSSTLGDSPLVDDPLEYQAGLLVQNAIQQAIAEQVDKAVSKTS RDGAEQQGPEATVEEAEAAAFGSEKPQSMFEPPQVSSPVQEKRDVLPKILPAEDRALRERGPPQPLPAVQPSGPI NMEETRPEGSYFSKYSEAAELRSTASLLATQESDVMVGPFKLRSRKQRTLSMIEEEIRAAQEREEELKRQRQVLQ STQSPRTKNAPSLPSRTCYKTAPGKIEKVKPPPSPTTEGPSLQPDLAPEEAAGTQRPKNLMQTLMEDYETHKSKR RERMDDSSYTSKLLSCKVTSEVLEATRVNRRKSALALRWEAGIYANQEEEDNE

## 384/2682 FIGURE 355

# 385/2682 FIGURE 356

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVFPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP KGYFLTKIFHPNVGANGEICVNVLKRDWTAELGIRHVLLTIKCLLIHPNPESALNEEAGRLLLENYEEYAARARL LTEIHGGAGGPSGRAEAGRALASGTEASSTDPGAPGGPGGAEGPMAKKHAGERDKKLAAKKKTDKKRALRALRRL

#### 386/2682 FIGURE 357A

CTCGGCCGGGCCCATGTGTGTGCGGCCCGCCCGAGGCCGCCCGGGCTTTGCCTCCACCAGCGCCCTGGCCTCCGC TCGGGCCTCCACACGGGCCTCCGAAGAGCTGCCGCGACGCCCGGCCCGCAGGGCAGGTAAAGAGATTATAAATCT TCCACTGAATGAAAAAAATTTTCTTAAAGCTGCATATACTCCAAGAAAAAAACCACAAATGTTTTTCTGTTTTGC CTGAATACATGATTTAAACAAGAGATTTCCACAGAAGCTCTGCGGCCGTCACGATGTTCTGGAAGTTTGACTTGA ACACCACGTCCCATGTTGACAAGCTGCTGGACAAGGAGCATGTGACGCTGCAGGAGTTAATGGATGAAGATGACA TGAGCCTCATCACACAGGATCCGCCCCTGGACATGGAGGAGAAGGTCCGCTTCAAATATCCAAACACAGCCTGTG AGCTTCTGACTTGTGATGTGCCGCAGATCAGCGACCGCCTCGGTGGGGACGAGAGCCTGCTGAGCCTCCTGTACG ACTTCTTGGACCATGAGCCGCCTCTCAATCCTCTGCTCGCCAGTTTTTTCAGCAAGACCATTGGCAATCTCATTG CAAGAAAAACCGAACAGGTGATTACGTTTTTGAAGAAGAAGGACAAGTTCATCAGCCTGGTGTTGAAGCACATCG TGCACTGGCTGAATGAAGAGAAGGTCATCCAGAGGCTTGTGGAGTTGATCCACCCGAGCCAGGATGAAGATAGGC AGTCAAATGCTTCTCAGACTCTCTGTGACATAGTTAGGCTGGGCAGAGACCAGGGCAGTCAGCTGCAAGAGGCTC TGGAGCCAGACCCGCTCCTCACAGCGCTGGAGTCGCAGGACTGTGTGGAGCAGCTTCTGAAGAACATGTTTGATG GAGACCGGACGGAGGGCTCCTCGTCAGTGGGACTCAGGTGTTACTCACCTTGCTGGAAACCAGGCGGGTTGGGA CAGAGGGCTTGGTGGACTCCTTTTCTCAGGGACTGGAAAGGTCATACGCTGTCAGCAGCAGCGTACTACACGGCA TCGAGCCTCGGCTGAAGGACTTCCACCAGCTCCTGCTCAACCCGCCCAAGAAGAAGCGATCCTGACCACTTG GTGTGCTGGAGGAGCCCCTGGGGAATGCCCGTCTGCATGGCGCCCCTCATGGCAGCACTGCTGCACACAAACA CACCCAGCATCAACCAGGAGCTCTGCCGGCTCAACACGATGGACTTACTGCTGGACTTGTTCTTTAAGTACACCT GGAATAACTTTTTGCACTTCCAAGTGGAACTATGCATAGCCGCTATTCTCTCCCACGCTGCCCGTGAGGAGAGGA CAGAAGCCAGCGGATCCGAGAGCAGGGTGGAGCCTCCGCATGAGAACCGGGAACCGGAGCCTGGAGACTCCCCAGC CGGCCGCCAGCCTCCCTGACAACACAATGGTGACCCACCTGTTCCAGAAGTGCTGCCTGGTGCAGAGGATCCTGG AGGCCTGGGAAGCCAACGACCACACGCAGGCAGCGGGTGGCATGAGACGTGGGAACATGGGCCACCTCACACGGA TCGCCAACGCGGTGGTGCAGAACCTGGAGCGGGGCCCTGTGCAGACGCACATCAGCGAGGTCATCCGAGGGCTCC CTGCGGACTGCCGTGGCCGCTGGGAGAGCTTCGTGGAGGAGACGCTGACGGAGACGAACCGCAGGAACACTGTGG ACCTGGCCTTCTCTGACTACCAGATCCAGCAGATGACAGCCAACTTCGTGGATCAGTTTGGCTTCAATGATGAGG AGTTTGCCGACCAGGACGACAACATCAATGCCCCGTTTGACAGGATCGCAGAGATCAACTTCAACATCGACGCTG ACGAGGACAGTCCCAGCGCAGCTCTGTTTGAGGCCTGCTGCAGTGACCGCATCCAGCCCTTTGATGATGATGAGG ACGAGGACATCTGGGAGGACAGTGACACTCGCTGTGCTGCCCGGGTGATGGCCAGACCCAGGTTTGGAGCCCCCC ATGCTTCAGAGAGTTGCTCAAAGAATGGCCCAGAGCGTGGAGGCCAGGATGGGAAGGCGAGCTTGGAAGCACACA CAGGCGCCATGTGGACGCAGTGTTTGATGAGCCAGCGAACTCAACGCCCACAGCCCCAGGAGTGGTGAGGGACG TGGGTTCCAGTGTGTGGGCAGCTGGCACCTCAGCTCCAGAGGAGAAAGGCTGGGCCAAGTTCACTGACTTCCAAC CTTTCTGCTGCTCCGAGTCAGGGCCCAGGTGCAGCTCTCCGGTGGACACAGAATGCAGCCATGCTGAGGGCAGCC GGAGCCAAGGCCCTGAGAAAGCCTTCAGCCCGGCTTCTCCATGTGCCTGGAACGTGTGTCACCAGGAAGGCCC CCCTGCTGGCCTCTGACAGTAGCTCCTCTGGGGGCTCCCACAGCGAGGATGGCGACCAGAAGGCAGCGAGTGCCA GCAGGGTCGGGTGTGCTGACAGCCGGCTGTTAAGCCCTGCCCGCGCCAAAGGAAGTGACTGCCCCAG CAGCAGTCTCTTCTGCACTGGCCGTGGCGGTCCCCCTAGGGCCCATCATGGCAGTCACAGCAGCCCCAGCCATGG  $\tt TGGCCACCCTGGGGACAGTGACAAAGGACGGACAGATGCCCCGCCAGAAGGAGCTGCCT{\color{red}{\textbf{TAA}}} \\ \texttt{ATGGCCCAGTGTG} \\$ ATGCTGCTGCCGCCCGGCCACGCCCACCCTGGTCAGGCTGCCTCCTTAATCGAGAAAACTACCTGGTGATGCAA TCTTTTTTTTTTAATTTAATTTAATTTTAAAATAAATGCTGCATTGGTAAAGCTGGCAGTTGAAACCAGTTGGA CGGCCCAGCTTGCGTCTCTTCTGCCTGAGTGGGCCTCTCAGGTCACTCGTGCCCTGCTGGAGGAGAGAGGGGCAC TTGTTGTTTTTTAAAGAATACAGAAGGAGCCAAGCTTTTTTGCACTTTGTATCCAGCTGCAAGCTCAGGGC

## 387/2682 FIGURE 357B

AGAGTCAAGGGCCTGGGTTGGAAAAACCTGACTCACAGGAATGCATAATTGACCCTTGCAGCTACCCAATAGCCC TTGGAGCTGGCACTGAACAAGACCTGCCTGACCAGGATTTGACTGCCTTAAAAACACAAGGCCCTCTAGGCCTGGCAGGGAT GTCCCTGTGCCCAGCACAGGGTGCCTGGCAGGGGGAGACCACAGGTATGCAGGTGGGGGGACATGGTGGGCACT GGGGGCTCGAAGACTGCTTCTAGCACTACCGGTCACGGCCATGTCGTCCTAGAAGGGTCCAGAAAATAATTTTA CGTTGAGTCCATTTTTAATGTTCTGATCACCTGACAGGGCACCCCAAACCCCCAACTCCCAATAAAAGCCGTGAC GTTCGG

#### 388/2682 FIGURE 358

MFWKFDLNTTSHVDKLLDKEHVTLQELMDEDDILQECKAQNQKLLDFLCRQQCMEELVSLITQDPPLDMEEKVRF
KYPNTACELLTCDVPQISDRLGGDESLLSLLYDFLDHEPPLNPLLASFFSKTIGNLIARKTEQVITFLKKKDKFI
SLVLKHIGTSALMDLLLRLVSCVEPAGLRQDVLHWLNEEKVIQRLVELIHPSQDEDRQSNASQTLCDIVRLGRDQ
GSQLQEALEPDPLLTALESQDCVEQLLKNMFDGDRTESCLVSGTQVLLTLLETRRVGTEGLVDSFSQGLERSYAV
SSSVLHGIEPRLKDFHQLLLNPPKKKAILTTIGVLEEPLGNARLHGARLMAALLHTNTPSINQELCRLNTMDLLL
DLFFKYTWNNFLHFQVELCIAAILSHAAREERTEASGSESRVEPPHENGNRSLETPQPAASLPDNTMVTHLFQKC
CLVQRILEAWEANDHTQAAGGMRRGNMGHLTRIANAVVQNLERGPVQTHISEVIRGLPADCRGRWESFVEETLTE
TNRRNTVDLAFSDYQIQQMTANFVDQFGFNDEEFADQDDNINAPFDRIAEINFNIDADEDSPSAALFEACCSDRI
QPFDDDEDEDIWEDSDTRCAARVMARPRFGAPHASESCSKNGPERGGQDGKASLEAHRDAPGAGAPPAPGKKEAP
PVEGDSEAGAMWTAVFDEPANSTPTAPGVVRDVGSSVWAAGTSAPEEKGWAKFTDFQPFCCSESGPRCSSPVDTE
CSHAEGSRSQGPEKAFSPASPCAWNVCVTRKAPLLASDSSSSGGSHSEDGDQKAASAMDAVSRGPGREAPPLPTV
ARTEEAVGRVGCADSRLLSPACPAPKEVTAAPAVAVPPEATVAITTALSKAGPAIPTPAVSSALAVAVPLGPIMA
VTAAPAMVATLGTVTKDGQMPRQKELP

GTTCCGGCGAGGAGGCCGCCAGTGACAGCGATGCCGGCGGAGTCGGCGCTCCAAGTTGTGGAGAAGCTGCAGG CGCGCCTGGCCGCGAACCCGGACCCTAAGAAGCTATTGAAATATTTGAAGAAACTCTCCACCCTGCCTATTACAG TAGACATTCTTGCGGAGACTGGGGTTGGGAAAACAGTAAATAGCTTGCGAAAACACGAGCATGTTGGAAGCTTTG CCAGGGACCTAGTGGCCCAGTGGAAGAAGCTGGTTCCTGTGGAACGAAATGCTGAGCCTGATGAACAGGACTTTG AGAAGAGCAATTCCCGAAAGCGCCCTCGGGATGCCCTGCAGAAGGAGGAGGAGATGGAGGGGGACTACCAAGAAA CCTGGAAAGCCACGGGGAGCCGATCCTATAGCCCTGACCACAGGCAGAAGAAACATAGGAAACTCTCGGAGCTCG ACTCTTCAGACCCTGAGTCTTCTGATTATGGCCATGTTCAATCCCCTCCATCTTGTACCAGTCCTCATCAGATGT ACGTCGACCACTACAGATCCCTGGAGGAGGACCAGGAGCCCATTGTTTCACACCAGAAGCCTGGGAAAGGCCACA GCAATGCCTTTCAGGACAGACTCGGGGCCAGCCAAGAACGACACCTGGGTGAACCCCATGGGAAAGGGGTTGTGA GTCAAAACAAGGAGCACAAATCTTCCCACAAGGACAAACGCCCCGTGGATGCCAAGAGTGATGAGAAGGCCTCTG TGGTGAGCAGAGAGAAATCACACAAGGCCCTCTCCAAAGAGGGAGAACCGAAGGCCACCCTCAGGGGACAATGCAA GGGAGAAACCGCCCTCTAGTGGCGTAAAGAAAGAGAAGGACAGGAGAGGGCAGCAGCCTGAAGAAGAAGTGTTTGC CTCCCTCAGAGGCCGCTTCAGACAACCACCTGAAAAAGCCAAAGCACAGAGACCCAGAGAAAGCCAAATTGGACA AAAGCAAGCAAGGTCTGGACAGCTTTGACACAGGAAAAGGAGCAGGAGACCTGTTGCCCAAGGTAAAAGAGAAAGG AAGTTGAGGAGACAGATATGGAGGATGAATTCGAGCAGCCAACCATGTCTTTTGAATCCTACCTCAGCTATGACC ACTCTAAAAGCACTGGTAAAAACTTGGACTCAGTTCAGAAATTACCCAAGGTGAACAAAACCAAGTCAGAAAAGC CGGCTGGAGCTGATTTAGCCAAGCTGAGAAAGGTGCCTGATGTTTGCCAGTTTGCCAGACCTCCCGTTACCCG CGATACAGGCCAATTACCGTCCACTGCCTTCCCTCGAGCTGATATCCTCCTTCCAGCCAAAGCGAAAAGCGTTCT CCAAGTGTGCCTATCTCCCTAAAATGATGACCTTGCACCAGCAATGCATCCGAGTACTTAAAAAACAACATCGATT CAATCTTTGAAGTGGGAGGAGTCCCATACTCTGTTCTTGAACCCGTTTTGGAGAGGTGTACACCTGATCAGCTGT ATCGCATAGAGGAATACAATCATGTATTAATTGAAGAAACAGATCAATTATGGAAAGTTCATTGTCACCGAGACT TTAAGGAAGAAGACCCGAAGAGTATGAGTCGTGGCGAGAGATGTACCTGCGGCTTCAGGACGCCCGAGAGCAGC GGCTACGAGTACTAACAAAGAATATCCAGTTCGCACATGCCAATAAGCCCAAAGGCCGACAAGCAAAGATGGCCT TTGTCAACTCTGTGGCCAAGCCACCTCGTGACGTCCGGAGGAGGAGGAGGAAAAGTTTGGAACGGGAGGAGCAGCTG TCCCTGAGAAAATCAAGATCAAGCCAGCCCCGTACCCCATGGGAAGCAGCCATGCTTCCGCCAGTAGCATCAGCT TTAACCCCAGCCTGAGGAGCCGGCCTATGATGGCCCCAAGCACCAGCAGTGCCCACTTGGCACCAGTGGTCAGCA GCACTGTTTCCTATGATCCTAGGAAACCCACTGTGAAGAAAATTGCCCCAATGATGGCCAAGACAATTAAAGCTT  ${\tt TCAAGAACAGATTCTCCCGACGA} \underline{{\tt TAA}} {\tt ACTGAGGACTTGCCTTGGAAATGGAATCTGGGGAGGCAGGAATACAAGG}$ ACAGTGGGGGTTGGGGAATGGAATTCTACAGGAGACTGGAGTCTTGCTTTGTGGATCCTTTTGGTCTCCGAGTCT CTGAAGATGTGAAGCCTCTGTCTCACTGAGGATTTTAAAGGTCAATTATACTTTTGTTGTTCATTAGCATCTTTG TAAACTATAAGACGTAGTTTTAATTAATAAATATTGCCCCCAGATGTTAAA

## 390/2682 FIGURE 360

MAAESALQVVEKLQARLAANPDPKKLLKYLKKLSTLPITVDILAETGVGKTVNSLRKHEHVGSFARDLVAQWKKL
VPVERNAEPDEQDFEKSNSRKRPRDALQKEEEMEGDYQETWKATGSRSYSPDHRQKKHRKLSELERPHKVSHGHE
RRDERKRCHRMSPTYSSDPESSDYGHVQSPPSCTSPHQMYVDHYRSLEEDQEPIVSHQKPGKGHSNAFQDRLGAS
QERHLGEPHGKGVVSQNKEHKSSHKDKRPVDAKSDEKASVVSREKSHKALSKEENRRPPSGDNAREKPPSSGVKK
EKDREGSSLKKKCLPPSEAASDNHLKKPKHRDPEKAKLDKSKQGLDSFDTGKGAGDLLPKVKEKGSNNLKTPEGK
VKTNLDRKSLGSLPKVEETDMEDEFEQPTMSFESYLSYDQPRKKKKKIVKTSATALGDKGLKKNDSKSTGKNLDS
VQKLPKVNKTKSEKPAGADLAKLRKVPDVLPVLPDLPLPAIQANYRPLPSLELISSFQPKRKAFSSPQEEEEAGF
TGRRMNSKMQVYSGSKCAYLPKMMTLHQQCIRVLKNNIDSIFEVGGVPYSVLEPVLERCTPDQLYRIEEYNHVLI
EETDQLWKVHCHRDFKEERPEEYESWREMYLRLQDAREQRLRVLTKNIQFAHANKPKGRQAKMAFVNSVAKPPRD
VRRRQEKFGTGGAAVPEKIKIKPAPYPMGSSHASASSISFNPSPEEPAYDGPSTSSAHLAPVVSSTVSYDPRKPT
VKKIAPMMAKTIKAFKNRFSRR

**TGACTTCCAAGCTGGCCGTGGCTCTTTTGGCAGCCTTCCTGATTTCTGCAGCTCTGTGTGAAGGTGCAGTTTTGC** CAAGGAGTGCTAAAGAACTTAGATGTCAGTGCATAAAGACATACTCCAAACCTTTCCACCCCAAATTTATCAAAG AACTGAGAGTGATTGAGAGTGGACCACACTGCGCCAACACAGAAATTATTGTAAAGCTTTCTGATGGAAGAGAGC TCTGTCTGGACCCCAAGGAAAACTGGGTGCAGAGGGTTGTGGAGAAGTTTTTGAAGAGGGCTGAGAATTCA**TAA**A AAAATTCATTCTCTGTGGTATCCAAGAATCAGTGAAGATGCCAGTGAAACTTCAAGCAAATCTACTTCAACACTT CATGTATTGTGTGGGTCTGTTGTAGGGTTGCCAGATGCAATACAAGATTCCTGGTTAAATTTGAATTTCAGTAAA CAAAAACAACAAATAATTTTTAAATATAAGGATTTTCCTAGATATTGCACGGGAGAATATACAAATAGCAAAAT TGAGCCAAGGGCCAAGAGAATATCCGAACTTTAATTTCAGGAATTGAATGGGTTTGCTAGAATGTGATATTTGAA GCATCACATAAAAATGATGGGACAATAAATTTTGCCATAAAGTCAAATTTAGCTGGAAATCCTGGATTTTTTCT GTTAAATCTGGCAACCCTAGTCTGCTAGCCAGGATCCACAAGTCCTTGTTCCACTGTGCCTTGGTTTCTCCTTTA TTTCTAAGTGGAAAAAGTATTAGCCACCATCTTACCTCACAGTGATGTTGTGAGGACATGTGGAAGCACTTTAAG ATTTATTTTAGATATTAAATGATGTTTTATTAGATAAATTTCAATCAGGGTTTTTAGATTAAACAAAGAA ACAATTGGGTACCCAGTTAAATTTTCATTTCAGATAAACAACAAATAATTTTTTAGTATAAGTACATTATTGTTT ATCTGAAAGTTTTAATTGAACTAACAATCCTAGTTTGATACTCCCAGTCTTGTCATTGCCAGCTGTGTTGGTAGT GCTGTGTTGAATTACGGAATAATGAGTTAGAACTATTAAAACAGCCAAAACTCCACAGTCAATATTAGTAATTTC TTGCTGGTTGAAACTTGTTTATTATGTACAAATAGATTCTTATAATATTATTTAAATGACTGCATTTTTAAATAC 

# 392/2682 FIGURE 362

 $\verb|MTSKLAVALLAAFLISAALCEGAVLPRSAKELRCQCIKTYSKPFHPKFIKELRVIESGPHCANTEIIVKLSDGRE \\ LCLDPKENWVQRVVEKFLKRAENS$ 

CTCGCCGCCATGCCTGGCTTCGACTACAAGTTCCTGGAGAAGCCCAAGCGACGGCTGCTGTGCCCACTGTGCGG CAGTGAAGGAGTCTTCAAGTGCCCTGAGGACCAGCTTCCTCTGGACTATGCCAAGATCTACCCAGACCCGGAGCT GGAAGTACAAGTATTGGGCCTGCCTATCCGCTGCATCCACAGTGAGGAGGGCTGCCGCTGGAGTGGGCCACTACG TCATCTACAGGGCCACCTGAATACCTGCAGCTTCAATGTCATTCCCTGCCCTAATCGCTGCCCCATGAAGCTGAG CCGCCGTGATCTACCTGCACACTTGCAGCATGACTGCCCCAAGCGGCGCCTCAAGTGCGAGTTTTGTGGCTGTGA CTTCAGTGGGGAGGCCTATGAGAGCCATGAGGGTATGTGCCCCCAGGAGAGTGTCTACTGTGAGAATAAGTGTGG TGCCGCATGATGCGGCGGCTGCTGGCCCAGCATGCCACCTCTGAGTGCCCCAAGCGCACTCAGCCCTGCACCTA CAACCAATGTGGTGTGGGCACTGTGGCTCGGGAGGACCTGCCAGGCCATCTGAAGGACAGCTGTAACACCGCCCT GGTGCTCTGCCCATTCAAAGACTCCGGCTGCAAGCACAGGTGCCCTAAGCTGGCAATGGCACGGCATGTGGAGGA GAGTGTGAAGCCACATCTGGCCATGATGTGTGCCCTGGTGAGCCGGCAACGGCAGGAGCTGCAGGAGCTTCGGCG AGAGCTGGAGGAGCTATCAGTGGGCAGTGATGGCGTGCTCATCTGGAAGATTGGCAGCTATGGACGGCGGCTACA GGAGGCCAAGGCCAAGCCTAACCTTGAGTGCTTCAGCCCAGCCTTCTACACACATAAGTATGGTTACAAGCTGCA GGTGTCTGCATTCCTCAATGGCAATGGCAGTGGTGAGGGCACACACCTCTCACTGTACATTCGTGTGCCTGC TGCCTTTGACAATCTCCTTGAGTGGCCCTTTGCCCGCCGTGTCACCTTCTCCCTGCTGGATCAGAGCGACCCTGG GCTGGCTAAACCACAGCACGTCACTGAGACCTTCCACCCCGACCCAAACTGGAAGAATTTCCAGAAGCCAGGCAC  ${\tt GTGGCGGGGCTCCCTGGATGAGAGTTCTCTGGGCTTTGGTTATCCCAAGTTCATCTCCCACCAGGACATTCGAAA}$ GCGAAACTATGTGCGGGATGATGCAGTCTTCATCCGTGCTGCTGTTGAACTGCCCCGGAAGATCCTCAGC**TGA**GT GGACCCCGTCAGCTGCTTCTGCTGCCTAGGTTCTGTTACCCCATCCTCCCCCCAGCCACCACCCTCAGGTG  ${\tt CCTCCAATTGGTGCTTCAGCCCTGGCCCCTGTGGGGAACAGGTCTTGGGGTCATGAAGGGCTGGAAACAAGTGAC}$ CCCAGGGCCTGTCTCCCTTCTTGGGTAGGGCAGACATGCCTTGGTGCCGGTCACACTCTACACGGACTGAGGTGC  $\tt CTGCTCAGGTGCTATGTCCCAAGAGCCATAAGGGGGTGGGAATTGGGGAGGAGAAAGGGTAGTTCAAAGAGTCT$ 

## 394/2682 FIGURE 364

MPGFDYKFLEKPKRRLLCPLCGKPMREPVQVSTCGHRFCDTCLQEFLSEGVFKCPEDQLPLDYAKIYPDPELEVQ VLGLPIRCIHSEEGCRWSGPLRHLQGHLNTCSFNVIPCPNRCPMKLSRRDLPAHLQHDCPKRRLKCEFCGCDFSG EAYESHEGMCPQESVYCENKCGARMMRGLLAQHATSECPKRTQPCTYCTKEFVFDTIQSHQYQCPRLPVACPNQC GVGTVAREDLPGHLKDSCNTALVLCPFKDSGCKHRCPKLAMARHVEESVKPHLAMMCALVSRQRQELQELRRELE ELSVGSDGVLIWKIGSYGRRLQEAKAKPNLECFSPAFYTHKYGYKLQVSAFLNGNGSGEGTHLSLYIRVLPGAFD NLLEWPFARRVTFSLLDQSDPGLAKPQHVTETFHPDPNWKNFQKPGTWRGSLDESSLGFGYPKFISHQDIRKRNY VRDDAVFIRAAVELPRKILS

#### 395/2682 FIGURE 365

## 396/2682 FIGURE 366

 ${\tt MVQLRPRASRAPASAEAMVDEGQLASEEEEAEHGLLLGQPSSGAAAEPLEEDEEGDDEFDDEAPEELTFASAQAE} \\ {\tt AREEERRVRETVRRDKTLLKEKRKRREELFIEQKKRKLLPDTILEKLTTASQTNIKKSPGKVKEVNLQKKNEDCE} \\ {\tt KGNDSKKVKVQKVQSVSQNKSYLAVRLKDQDLRDSRQQAAQAFIHNSLYGPGTNRTTVNKFLSLANKRLPVKRAA} \\ {\tt VQFLNNAWGIQKKQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNAWGIQKKQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNNAWGIQKCQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNNAWGIQKCQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK} \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK } \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK } \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKMKTKK } \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKM } \\ {\tt VQFLNAWGIQKCQNAKRFKRRWMVRKM } \\ {\tt VQFLNAWGIQKCQNAKRM } \\ {\tt VQFLNAWGIQKCQNAMGIQKCQNAK } \\ {\tt VQFLNAWGIQKCQNAMGIQKCQNAK } \\ {\tt VQFLNAWGIQKC$ 

GCAGCAGGCCAAGGGGGAGGTGCGAGCGTGGACCTGGGACGGGTCTGGGCGGCTCTCGGTGGTTGGCACGGGTTC GCACACCCATTCAAGCGGCAGGACGCACTTGTCTTAGCAGTTCTCGCTGACCGCGCTAGCTGCGGCTTCTACGCT  $\tt CCGGCACTCTGAGTTCATCAGCAAACGCCCTGGCGTCTGTCCTCACCATGCCTAGCCTTTGGGACCGCTTCTCGT$ CGTCGTCCACCTCCTCTTCGCCCTCGTCCTTGCCCCGAACTCCCACCCCAGATCGGCCGCCGCGCTCAGCCTGGG GGTCGGCGACCCGGGAGGAGGGGTTTGACCGCTCCACGAGCCTGGAGAGCTCGGACTGCGAGTCCCTGGACAGCA GCAACAGTGGCTTCGGGCCGGAGGAAGACACGGCTTACCTGGATGGGGTGTCGTTGCCCGACTTCGAGCTGCTCA GTGACCCTGAGGATGAACACTTGTGTGCCAACCTGATGCAGCTGCTGCAGGAGAGCCTGGCCCAGGCGCGGCTGG GCTCTCGACGCCCTGCGCGCCTGCTGATGCCTAGCCAGTTGGTAAGCCAGGTGGGCAAAGAACTACTGCGCCTGG TGGGCCAGCTGGCACTCGACCCCAGCCTGGTGCCCACCTTCCAGCTGACCCTCGTGCTGCGCCTGGACTCACGAC TCTGGCCCAAGATCCAGGGGCTGTTTAGCTCCGCCAACTCTCCCTTCCTCCCTGGCTTCAGCCAGTCCCTGACGC TGAGCACTGGCTTCCGAGTCATCAAGAAGAAGCTGTACAGCTCGGAACAGCTGCTCATTGAGGAGTGT<u>TGA</u>ACTT CAACCTGAGGGGGCCGACAGTGCCCTCCAAGACAGAGGCGACTGAACTTTTGGGGTGGAGACTAGAGGCAGGAGC TGAGGGACTGATTCCAGTGGTTGGAAAACTGAGGCAGCCACCTAAGGTGGAGGTGGGGGAATAGTGTTTCCCAGG AAGCTCATTGAGTTGTGCGGGTGGCTGTGCATTGGGGACACATACCCCTCAGTACTGTAGCATGGAACAAAGG CTTAGGGGCCAACAAGGCTTCCAGCTGGATGTGTGTGTAGCATGTACCTTATTATTTTTTGTTACTGACAGTTAAC TCCTCAGAGCAGCCGGAGGGGGGGGGGGGGCGCGGGGTCGTGGAGGTGGTTTGTGTATCTTACTGGTCTGAAGGG ACCAAGTGTGTTTGTTTGTTTTGTATCTTGTTTTTCTGATCGGAGCATCACTGACCTGTTGTAGGCAGC AAATTACACCTGGCAGCTGCGTTTAAGCCTTCCCCCATCGTGTACTGCAGAGTTGAGCTGGCAGGGGAGGGGCTG AGAGGGTGGGGGCTGGAACCCCTCCCGGGAGGAGTGCCATCTGGGTCTTCCATCTAGAACTGTTTACATGAAGA TAAGATACTCACTGTTCATGAATACACTTGATGTTCAAGTATTAAGACCTATGCAATATTTTTTACTTTTCTAAT AAACATGTTTGTTAAAACAAAAAAAAAAAAAAAAA

## 398/2682 FIGURE 368

MPSLWDRFSSSSTSSSPSSLPRTPTPDRPPRSAWGSATREEGFDRSTSLESSDCESLDSSNSGFGPEEDTAYLDG VSLPDFELLSDPEDEHLCANLMQLLQESLAQARLGSRRPARLLMPSQLVSQVGKELLRLAYSEPCGLRGALLDVC VEQGKSCHSVGQLALDPSLVPTFQLTLVLRLDSRLWPKIQGLFSSANSPFLPGFSQSLTLSTGFRVIKKKLYSSE QLLIEEC

## 399/2682 FIGURE 369

## 400/2682 FIGURE 370

MHRDSCPLDCKVYVGNLGNNGNKTELERAFGYYGPLRSVWVARNPPGFAFVEFEDPRDAADAVRELDGRTLCGCR VRVELSNGEKRSRNRGPPPSWGRRPRDDYRRRSPPRRRSPRRRSFSRSRSLSRDRRRERSLSRERNHKPSRS FSRSRSRSRSNERK